

CONTEMPORARY NAVAJO WEAVING:
AN ETHNOGRAPHY OF A NATIVE CRAFT

by

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This thesis for the Doctor of Philosophy degree by


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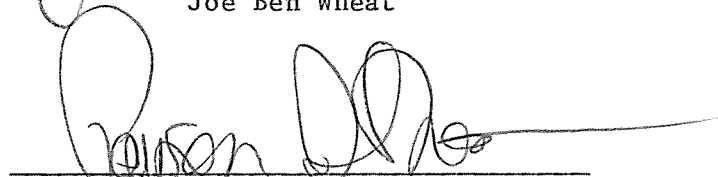
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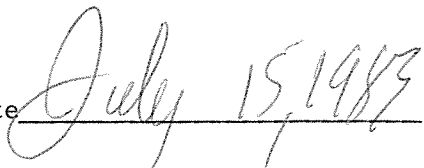
Department of

Anthropology

by


Joe Ben Wheat


Payson Sheets

Date 

To my parents,
Jim and Doris Hedlund

To my husband,
Kit Schweitzer

and

To the Navajo women
who gave more than
I am able to return

Hedlund, Ann Lane (Ph.D., Anthropology)

Contemporary Navajo Weaving: An Ethnography of a Native Craft

Thesis directed by Professor Joe Ben Wheat

The present condition of weaving in a single community on the Navajo Reservation is examined in this study. Emphasis is placed upon the current status of a native craft industry in a rapidly changing culture. The cultural and social contexts within which textile production occurs, and the materials, techniques and designs used in current weaving are documented. Analysis focuses upon the Navajo perspective on weaving and upon the social and economic factors that influence the weavers' decision-making processes.

An ethnographic approach utilizing participant observation and interview techniques has provided the major portion of the data. Research included a broad survey of the weavers living in the Kinlichee Chapter of the Fort Defiance Agency on the Navajo Reservation. Ethnographic data was gathered for a sample of Kinlichee weaving families. Published and unpublished sources furnished comparative historical information. Government and trading post records provided background economic and demographic data.

Although weaving has decreased considerably in the past several decades, there are still significant numbers of weavers producing rugs on the reservation. Weaving has both social and economic import, and has increasing value as a symbol of Navajo cultural heritage.

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PART I

INTRODUCTION

CHAPTER 1

INTRODUCTION

Modern Navajo weaving is the product of the distinctive and changing culture of the Navajo people. Historic weaving of the nineteenth centuries has been characterized as a combination of native tradition, individual innovation, contact with foreign cultures and directed modification by consumers (Kent 1976; Wheat 1976). Native weaving in the midst of contemporary acculturation, however, has not previously been explored. The considerable changes during the past three decades in the lifeways of the Navajo people, in the orientation of a specialized market towards native American art, in U.S. government policy and programs, and in the Navajos' own tribal government, warrant a closer look at concurrent changes in the society's weaving practices.

In 1959 Adair considered weaving, along with silversmithing and pottery making, to be a "strictly commercial" enterprise that would soon die out because it was not economically viable:

Weavers . . . cannot support their families by such work due to a frozen means of production--the vertical loom and spindle-spun yarn. The Navajo rugweaver is able to earn, at best, twenty cents an hour for her work: scouring, carding, spinning, dyeing, stringing the loom, and finally the weaving itself. Very few of the younger girls now going to school will pursue that craft in the future simply because they cannot afford to do so. These girls will seek jobs as typists, waitresses and domestic help, any of which will bring much more money into the family. (1959:100-101).

Two years later, Kate Peck Kent concluded:

As paved roads, swift transportation, education, technocracy, business opportunity and modern tempo inevitably move across the Reservation, Navaho rugs will probably become the product of a few artisans only, and no longer a factor of economic importance in the life of the people as a whole. (1961:41).

Despite the growing market for handwoven goods, Kent noted that young women, potential weavers, were following other careers that offered greater monetary rewards. Kent and the Mosses (1975:120) suggested that the future of weaving lay in the hands and imaginations of a very few, highly skilled weavers who can command higher prices from museums and private collectors.

What has happened to Navajo weavers since Adair and Kent expressed their opinions? How accurate were their observations and predictions, and upon what were they based? How does weaving of today compare to that done in the 1930s when Gladys Reichard (1934, 1936, 1939) made her studies of reservation weavers? What factors are involved in the continuity and evolution of the Navajo weaving tradition?

The present study is an examination of these and related questions. It is essentially the documentation of a single native craft industry within one community, the Kinlichee Chapter, from 1979 to 1982. The task of ethnography "focuses on describing variations in behavior patterns and the meaning people ascribe to their experiences and activities" (Plog and Bates 1976:11), and includes the study of enculturation, technology, economic behavior, social organization, political behavior, and religious, magical and

scientific strategies for explaining the world. As such, this study constitutes an ethnography of weaving.

Through the documentation of weaving practices, from the initial learning steps to the final sale of a rug, it has become apparent that Navajo weaving remains an important activity economically, psychologically and socially for many people. At Kinlichee, with a population of perhaps 400 to 450 adult women of the proper age to weave, at least 181 women (and two men) have been identified as weavers. Available data indicate that there are extremely proficient weavers, such as those that Kent and the Mosses suggest exist in very small numbers, who earn large sums of money and who retain considerable independence in their art. There are other weavers who are not entirely motivated by economics and who have diverse approaches to the craft. In sum, and in answer to Adair and Kent at least for the moment, weaving survives on the Navajo Reservation with vitality and purpose.

Theoretical Considerations

It is essential to consider the cultural context of an activity such as weaving if one is to gain insight into its changing nature. Haselberger (1961:343) suggests that the "study of art in the whole structure of the culture" is a major problem for investigation in the field of ethnological art. Like Boas (1927) over thirty years earlier, she views field investigations as essential for providing the proper perspective to art objects and activities.

Anthropological studies of art began in earnest in the nineteenth century, with interests focused largely upon evolutionary

theories applied to artistic development (cf. Taylor 1959). Opposed to the evolutionary schemes, important twentieth century works include Boas' Primitive Art (1927) in which he emphasized the description of technical skills and the expression of emotions and thought through art forms. Boas influenced a generation of anthropologists, his students and peers, who undertook a number of material culture studies that remain relevant today (Bunzel 1929; O'Neale 1932; Reichard 1934, 1936, 1939; Weltfish 1953).

In the period before mid-century, anthropologists examined art as an indicator of the modal personality of specific cultures, the individual artist and his role in society, and the function of society in judging its artists' works. While much research was conducted in Africa and Asia (cf. Barnouw 1973:392), Bunzel's study of Zuni potters (1929) and O'Neale's work with Yurok basketmakers (1932) are important in documenting native American art traditions and especially in examining the craftperson's role in society.

In 1944, Adair published his study of Navajo and Zuni silversmithing. This work combines historical, technological and economic concerns to describe the cultural context of this craft. Adair (1944:vii) wrote:

The most interesting thing about Navajo and Pueblo silver is not the aesthetic object separated from its social setting and viewed abstractly in a museum case, nor yet the making of this object, but the sociological significance of the art form in Navajo and Pueblo culture. This whole aspect of the craft has hitherto been neglected, as it has been in the studies made of the arts of many other primitive peoples.

In the early 1950s, several general syntheses concerning art in anthropology were published (Linton 1941; Firth 1951; Herskovits

1959). They emphasized the cultural background of art and its integration in society. Herskovits devoted an essay to the subject of art and values:

The task of the ethnologist concerned with art, then, as I have tried to show, is to introduce the broadest based, and, in human terms, a many faceted approach to the understanding of the aesthetic phases of human life. (1959:67).

A major question of the time was, "What does art do in society?" On one level, Firth answered, ". . . the system of representations conveyed by the objects of art, in particular, the symbols, corresponds to some system of social relations" (1951:192). On other levels, Firth envisioned art functioning in the context of technology and practical utility.

Since the 1950s, anthropological studies of art have continued to extend the concept of art in cultural context. In his review of the subject, Silver (1979) outlines contemporary themes in the literature, including symbolism, aesthetic values, individual artists' roles, changing technology and, importantly, acculturation.

The arts of acculturation, as Graburn (1969:457) terms the nontraditional arts of societies in transition, are the focus of a number of recent studies (cf. Graburn 1976; Otten 1971; Helm 1966). Graburn has defended the study of acculturative art as a legitimate concern of anthropologists on the grounds that such arts "have often been major means of articulation between mutually acculturating societies, not only in aesthetic but also in economic, technological and psychological ways" (1969:458). The arts of contemporary peoples may be divided into two major types:

1) Those arts--the inwardly directed arts--that are made for, appreciated, and used by peoples within their own part-society; these arts have important functions in maintaining ethnic identity and social structure, and in didactically instilling the important values in group members.

2) Those arts made for an external, dominant world; these have often been despised by connoisseurs as unimportant, and are sometimes called "tourist" or "airport" arts. They are, however, important in presenting to the outside world an ethnic image that must be maintained and projected as a part of the all-important boundary-defining system. (Graburn 1976:4-5).

Examples of the first group include Navajo sandpainting, Hopi weaving and knitting, certain African carving, and Japanese ceramics. The second category encompasses such endeavors as Navajo weaving, Hopi silver and gold work, Eskimo carving, and Australian bark painting.

Graburn (1976:5-8) has further classified the arts of this second group in order to discuss their direction of change:

1. Extinction: The decline or disappearance of the indigenous art form . . .
2. Traditional or functional fine arts: The persistence of a traditional art form can be accompanied by some changes in technique and form, or even some incorporation of a few European derived symbols and images. As long as these changes do not seriously disturb the transmission of symbolic meaning, and hence the culturally appropriate satisfactions, these may still be called functional or contact-influenced traditional arts. . .
3. Commercial fine arts: Many art forms similar to the above may be called commercial or pseudo-traditional arts because, although they are made with eventual sale in mind, they adhere to culturally embedded aesthetic and formal standards. . .
4. Souvenirs: When the profit motive or the economic competition of poverty override aesthetic standards, satisfying the consumer becomes more important than pleasing the artist. These are often called "tourist" arts or "airport" arts and may bear little relation to the traditional arts of the creator culture or to those of any other groups. . .

5. Reintegrated arts: Not all contemporary arts fall on a simple continuum between traditional arts and European arts. Cultural contact between dominant and minority peoples has often led to fertile new forms, developed by taking some ideas, materials, or techniques from the industrial society and applying them in new ways to the needs of the small-scale peoples. These arts are new syntheses. . .

6. Assimilated fine arts: There are an increasing number of instances where the conquered minority artists have taken up the established art forms of the conquerors, following and competing with the artists of the dominant society. . .

7. Popular arts: . . . An artistic elite has arisen whose arts often take the form of European traditions, but in context express feelings totally different, feelings appropriate to the new cultures that are emerging among the leaders of the Third World. (1976:5-7).

Navajo weaving can certainly be considered an art of acculturation, and Graburn's scheme may be appropriately applied to both its historical and contemporary phases. The craft was initially acquired from the Pueblo Indians, subsequently modified through Spanish and Anglo influences, transformed into a Navajo "tradition," and then evolved into a highly commercial craft. As such, it can be classified as a "reintegrated" art form as both Graburn (1976:6) and Kent (1976) suggest. However, it also contains elements of the commercial fine arts and the souvenir arts. There are indications of great variability from weaver to weaver and from community to community, and acculturation appears to increase this heterogeneity. Documentation of this variability in contemporary weaving is an essential part of the present study.

Intercultural variability is widely recognized and in art should be a focus of research by anthropologists. Intracultural diversity, however, has only begun to attract the attention of scholars. Pelto and Pelto (1975) discuss some of the advantages and

counter some of the criticisms of looking at diversity within cultural systems:

Recent anthropological research includes a growing number of studies which focus directly on issues of intra-cultural and intra-community diversity, rather than simply recording passing mention of "deviations" from norms or cultural patterns that are presumed to be standardized. Studies of behavioral and cognitive diversity are essential for understanding differential processes of social change, as well as other theoretical problems. We suggest that intra-group diversity in behavioral repertoires and cognitive orientations, like genetic diversity within populations, is of great significance for on-going processes of human adaptation.

Because many facets of Navajo life have been thoroughly studied, variability among the Navajo people is perhaps more commonly acknowledged than among many other groups. There are a number of reports that point at considerable intracultural differences. Roberts (1951) demonstrated the diversity inherent in three apparently similar Navajo households in a single community. He concludes:

The evidence of the survey, the sheep butchering sequence, the material inventories, and the photographs demonstrate that each small group culture can be distinguished from the others. . . it can be asserted with some assurance that every Ramah Navajo household defines an independent and unique small group culture. (1951:77).

Lamphere (1977:124) notes "a great deal of variation in residence patterns and residence group composition within Navajo communities, between communities, and at various points in time." Regional variations as well as certain intraregional differences in kinship terminology are documented by Stanley and Ruth Freed (1970). Differences in individuals' knowledge of specific religious and philosophic features have been acknowledged by a number of fieldworkers (Kluckhohn and Leighton 1974:195-196; Reichard 1970;

Mitchell 1978). Levy and Kunitz (1974:35), following Vogt (1961:306), describe Navajo society as an open but stratified system, far from the homogeneous society sometimes assumed. Graves (1970) explores the adjustment of Navajo urban migrants through the evaluation of a wide number of variables which illustrate and reinforce the non-uniform ways in which Navajo individuals can behave.

The range of weaving activities, however, has not been previously analyzed, even as Navajo rugs have become an identifying mark of the Navajo people. Many published reports tend to gloss and stereotype weavers: "In spinning as in weaving, the Navaho woman prefers simplicity to speed" (Amsden 1934:37). "Experimentation in weaving has been almost exclusively limited to design. . . All of the weaving is done by women" (Kluckhohn and Leighton 1974:67-68). "Nearly all Navajos are artists and spend a large part of their time in artistic creation" (Witherspoon 1977:152). Almost no one mentions the mediocre or poor quality rug weaver.

As Pelto and Pelto (1975:10-11) point out, economic activities such as weaving are especially prone to variation:

When we move from these highly patterned domains [of ritual and ceremonial behavior] to more mundane make-a-living activities, the forces for intrasocietal variation are much stronger. . . . especially in the not-so-resplendent areas of day-to-day economic activity, jural rules may be few and far between, and people are acting in terms of the varying efficacies of complex, inter-related social, economic, physical and psychological constraints.

Moreover, there are "significant intra-community variations [that occur] in response to outside change agents and other forces of modernization" (1975:5). In studying craft production where

there is concern about the survival of native techniques and aesthetic principles, an examination of variability will prove useful in assessing future directions. Weaving will thus be approached as a craft in transition, an art in the midst of acculturation, and as a potentially variable activity.

Organization

As an ethnography of a native craft, the present study sets forth the practical aspects and the cultural context of weaving. By way of introduction, previous work on Navajo weaving is reviewed in Chapter 2. The community of Kinlichee--the natural environment, the local population and the socioeconomic situation--is described in Chapter 3. In Chapter 4, a discussion of research methodology provides information on how data were collected and organized.

The main portion of the text is divided into Parts II and III. The first of these introduces the reader to the processes and activities involved in weaving. Chapter 5 describes the Navajo manner of learning through observation and demonstration, and documents the variety of sources from which one may currently learn to weave. In Chapter 6, the tools, materials and techniques used in weaving are described. While the primary tool kit and structures of weaving have changed little during the past century, contemporary variations of traditional practices do exist and are documented. The variety and sources of rug designs are described in Chapter 7. Kinlichee provides an excellent example of the deregionalization of rug styles and this is discussed. In the final chapter of Part II,

Chapter 8, the growing market for Navajo weaving and buyer/seller relationships are examined.

An exposition of the social, religious, economic and political dimensions which affect weaving are presented in Part III. Weavers' roles in Navajo society, their relationships with one another, and male involvement in the craft are all aspects of the social perspective on weaving presented in Chapter 9. As religion figures prominently in traditional Navajo life, its continuing role in contemporary life vis a vis weaving is examined in Chapter 10. In Chapter 11, the economic and political implications of reservation weaving are examined in the light of growing wage employment and tribal policies on modernization.

In Part IV, Chapter 12 is a reappraisal of contemporary weavers and their approaches to weaving. The identification of four types of weavers on a continuum from highly professional to practicing marginally allows for an interpretation of the diversity and the flexibility of contemporary weaving. A summation of the study and conclusions are presented in Chapter 13.

A Note about Sources

The creation of a pseudonym for Kinlichee has not been necessary. Most of the information recorded here is common knowledge within the community and not considered to be injurious to anyone. There are, however, individuals who wish to remain anonymous for various personal reasons. Their preferences are respected and pseudonyms have been used for most of the individual weavers

described in the following pages. Quotations from weavers are transcribed directly from my field notes.

Notes about Navajo Terms

The Navajo word for any Anglo American or white person is bilagaana, apparently derived from the Spanish, americano (Young and Morgan 1980:221). Because that is what Navajos call Anglos, this is the term used throughout the text to refer to white people.

Due to problems in typography, diacritical marks and accents on Navajo words have been omitted. Young and Morgan's The Navajo Language: A Grammar and Colloquial Dictionary (1980) is the source for all Navajo orthography used here and can be consulted for appropriate diacritical marks.

CHAPTER 2

STUDIES OF NAVAJO WEAVING

In the years since Troncoso reported that the Navajo "... make the best and finest sarapes that are known, blankets, wraps (mantas), cotton cloth, coarse cloth, sashes, and other (things) for their dress and for sale. . ." (as reported in 1788; Wheat 1981:3), considerable attention has been devoted to Navajo handweaving. The majority of publications on Navajo textiles are descriptive and historically-oriented; many are not based on original research so much as they are re-worked versions of previously published material. A discussion of original work follows, arranged topically in terms of historical, technological, sociocultural and aesthetic categories. The historical section, comprising the largest group of references, is organized chronologically with respect to periods of Navajo history. The purpose of the following four sections is to provide both a contextual background and specific points of comparison for the present study.

Historical Approaches

The Navajo are relative newcomers to the American Southwest, having arrived in their present homeland sometime around the fifteenth century (Vogt 1961:279-288). It is generally assumed that the Navajo did not bring the art of loomweaving with them from the

north but, rather, learned from their Pueblo neighbors in the Southwest. Wheat places the inception of Navajo weaving around 1650 (1981:3). From Spanish chronicles it is known that both wool and cotton blanket-weaving were well-established among the Navajo by the early 1700s (Wheat 1981; Hill 1940). From the beginning Navajo weavers were receptive to new ideas and readily incorporated new motifs, colors and materials into their blankets and dresses. Exposure to Spanish and Mexican textiles as well as to the Pueblo weaving tradition, and later in the nineteenth and twentieth centuries, to American taste and Oriental fabric design, brought about enormous changes in Navajo weaving.

Current research by Wheat (n.d.; 1976; 1977; 1978; 1981) on early Navajo weaving concerns the documentation of the craft's seventeenth and eighteenth century origins and subsequent evolution through the nineteenth and twentieth centuries. Through the analysis of primary documents and of textiles with accurate provenience, much new information has come to light and many preconceptions have been altered. Dating of undocumented textiles has become more precise, based on dye tests, materials analysis and comparative historical data. Wheat's research includes the entire southwestern textile tradition because of the relationships between Navajo, Pueblo, Spanish-American and Mexican weaving. Preliminary findings have been published as articles and essays, providing the definitive outline for Navajo textile history, with a major publication forthcoming.

While Amsden's book, Navaho Weaving: Its Technic and History (1934) has long been considered a classic reference, Wheat's recent work has found many failings in Amsden's scholarship and casts doubt upon its historical accuracy (Wheat, personal communications, 1978-82). Similar weaknesses have been discovered in the reliability of James' Indian Blankets and their Makers (1920; see K. Bennett 1979 for a critical review).

H.P. Mera's small book, Navajo Textile Arts (1948), outlines the basic categories and time periods for understanding historic Navajo textiles. His catalogue of the Alfred I. Barton collection provides further illustrations of his scheme (Mera 1949). Both books have been revised or expanded recently--the former by Roger and Jean Moss in 1975, and the latter by Joe Ben Wheat in 1978. Kent's The Story of Navajo Weaving (1961) includes a concise review of nineteenth and twentieth century textile history and is currently under revision as well. Other brief and popularized accounts of historic Navajo weaving can be found in Dutton (1974), Maxwell (1963) and Tanner (1968).

Of the many museum exhibition catalogues on the subject, Kahlenberg and Berlant's two books written as accompaniment to an exhibit organized at the Los Angeles County Museum of Art illustrate one of the widest arrays of Classic and Late Classic blankets (Kahlenberg and Berlant 1972; Berlant and Kahlenberg 1977). Less widely known is a catalogue entitled Navajo Weaving: From Spider Woman to Synthetic Rugs (Walters 1977). Published by the Navajo Community College, it provides insight to the Navajo perspective on textile history.

A number of shorter articles focus with varying degrees of clarity on specific aspects of early Navajo weaving. In an excellent essay, Kathleen Bennett (1981) discusses the role of Navajo chief-style blankets in trade between Navajos and non-Navajos in the eighteenth and nineteenth centuries. Rodee's "Bayeta and the History of Cochineal Dye" (1980) is a report on the red fabric commonly raveled and re-used by Navajo weavers. Already out of date, no mention is made of the dye from the lac insect which now is known to be responsible for the majority of raveled red yarns found in blankets prior to the 1860s (Wheat, personal communications, 1981-82).

Beginning in 1863 with the Navajo internment at Bosque Redondo and continuing after their release in 1868, contacts with the outside world increased. American settlers and the military had moved in; the railroad was built in 1881; trading posts were established; off-reservation travel became easier. Revolutionary new materials and stimulating design ideas became available for incorporation into Navajo blankets. Native use of these textiles as garments gave way to their trade in a market seeking floor coverings, thus Navajo blanketmaking made the transition to rug-weaving.

In this period of transition during the late nineteenth century a wide spectrum of textiles was produced. The literature dealing with this time is correspondingly varied. Brody's exhibition catalogue, Between Traditions: Navajo Weaving Toward the End of the Nineteenth Century (1976), concentrates on the "eye dazzlers"

and "pound blankets" of the 1880-1910 period. Another exhibit catalogue examines the wide range of pictorial weaving made by Navajos (Cerny 1975). Rodee's brief article on multiple-pattern Germantown rugs (1978) discusses the results of examining a sample of the nation's private and public textile collections. Sand-painting textiles are placed in historical and cultural context by McGreevy (1981). An earlier article by Sapir (1935) describes a single sandpainting blanket.

The establishment of rugweaving at the turn of the nineteenth century and the development of regional rug styles before 1940 hold great potential for scholarly study. A number of first-hand accounts by traders, travelers and collectors provides salient descriptions of reservation life, commenting on weavers and documenting certain styles of weaving (Forrest 1970; Gillmor and Wetherill 1934; Hegemann 1963; Hannum 1946). The Franciscan Fathers (1910) of St. Michaels, Arizona, did a great service to the Navajo heritage by recording ethnographic details, including weaving practices, in their dictionary of the Navajo language.

Illustrated catalogues of trading post arts and crafts were published by Lorenzo Hubbell (1902), J.B. Moore (1909, 1911) and C.N. Cotton (1896, 1920, 1925), among others, indicating the types of rugs for sale in the early part of this century. The unpublished papers of Hubbell Trading Post (University of Arizona Library, Special Collections) contain remarkably detailed accounts of trading at Ganado from 1876 to the 1940s, including lists of raw materials and finished woven products. Undoubtedly there exist other trading

post records obscurely tucked away which, when found, will yield valuable data. One of the best currently available sources of information on trading posts, their histories and influences on weavers, is McNitt's The Indian Traders (1962), representing extensive archival research and the collection of oral histories. James' tour-guide approach (1976) to the reservation's posts and regional rug localities is a less-detailed, popularized approach to the same subject.

Despite the apparent wealth of primary data, the extant published work on the evolution of early rug production is somewhat disappointing in scope. Rodee's slim volume (1981) contains a maximum of 39 large-margined pages of text with 77 photographs or plates. The historical analysis, for its claims to be a complete guide to weaving of the first half of the twentieth century, is shallow at best. Seven pages on Juan Lorenzo Hubbell and his "trading Empire" is hardly sufficient to cover the extensive and influential trade network founded by this entrepreneur. Kent's overview of the same topic (1981) is a competent collation of much the same information.

Of narrower scope but considerably more successful, Simmons examined specific early rug motifs and correlated them with their prototypes in Oriental carpets (1977). An unpublished master's thesis (Boles 1977) used the Hubbell files and especially Hubbell's rug-design drawings in order to trace the trader's influence on Ganado rugs from 1820 to 1920.

Vegetal dyed innovations begun in the 1920s and continuing to the present are briefly reported in a number of sources. An in-

depth history of the vegetal "revival" at Chinle, Wide Ruins and Crystal, and the influential roles of Cozy McSparron, Camille Garcia and the Lippincotts has yet to be done. Original documents such as Bryan and Young's recipe book for native dyes (1940), an earlier manuscript by Young (1938), and a variety of museum and privately collected textiles preserved from this period are available.

A master's thesis, written in 1938 from interviews with Navajo dyers (rather than previously published sources) and from experimentation with dye samples, provides another glimpse into the vegetal dyeing practices of the 1930s (Hollowell 1938). Irene Stoller (1977) has written a useful account of the traders' influences at Chinle and Wide Ruins, derived in part from interviews with the surviving wives of two traders. While not historical in nature, a recent manuscript and accompanying slide collection documents Navajo use of one hundred reservation plants including those employed in dyeing (Lacy 1978).

Reichard's studies of weavers in the 1930s (1934, 1936) will be discussed in a later section on sociocultural approaches in the literature. While highly informative for one particular time period and one specific group of people, her work does not substantially inform on the history nor predominant trends of Navajo weaving.

For approximately two decades after 1940 Navajo weaving showed improvements in quality. Regional rug styles flourished and Navajo textiles acquired a successful identity in off-reservation markets. Bartlett (1950) documented the woven styles produced on the western part of the reservation in 1949. An unpublished

manuscript by Hassell (1955) describes the reservation-wide trends during the mid-1950s. Maxwell (1963), Dutton (1961) and Kent (1961) all review the distinctions between the various regional styles.

By the 1960s, along with other Indian arts and crafts, Navajo weaving was receiving recognition as an important craft/art form by collectors and museums. A major collection of documented contemporary rugs with full technical analyses was published by the Heard Museum (Erickson and Cain 1976). In 1974 Arizona Highways devoted a special issue to modern rug weavers and their rug styles. Through photographs and brief commentary, the magazine documented contemporary regional variations and publicized the work of a number of superior weavers.

Technological Sources

The documentation of specific weaving techniques has provided the basis for understanding and analyzing the past and present products of the Navajo loom. The popularity of books in this category indicates a strong interest from the bilagaana audience; it is interesting to note that an increasing number of Navajo weavers also consult these sources today.

The earliest technical account of Navajo weaving, with a full description of the tools and the woven structures, was written by Washington Matthews in 1881-82 (1884). Matthews recorded wool processing and native dyeing, loom construction and warping, weaving techniques and design styles. In later articles he reported on newly observed dyes and weaving techniques (1891, 1900, 1904). George Pepper (1902, 1903), apparently drawing from Matthews'

observations as well as his own, also discusses the processes of preparing materials, dyeing and weaving.

Gladys Reichard's Navajo Shepherd and Weaver (1936) was the next original account of procedures and equipment employed. With photographs, Laura Gilpin recorded weaving tools and processes in The Enduring Navajo (1968). "The Weaver and the Wool" is a more recent photo-essay documenting a rugweaving project from beginning to finish (Gallagher 1981). Another well-illustrated article, "Navajo Weaving: From the Inside Out," also explains weaving procedures (N. Bennett 1980).

Working with the Wool: How To Weave a Navajo Rug is an extremely clear instruction book, the only one co-authored by a Navajo weaver (Bennett and Bighorse 1971). A second volume, Designing with the Wool, Advanced Navajo Weaving Techniques (N. Bennett 1979), provides information on twill, two-faced, and other complex weaves. Encompassing both Navajo and Hopi techniques for rugs, sashes and sash-belts, Pendleton (1974) also provides step by step instructions for weaving. A short article that informally describes the spinning and weaving processes is included in the Navajo Weaving Handbook (Wapp 1977). There are also a few reports and pamphlets written as guides to collectors in evaluating and caring for textiles (D. Bennett et al. 1981; Elmer 1980; Dederer 1975; N. Bennett 1973; Merry 1960).

Navajo students at the Pine Hill School in Ramah, New Mexico, wrote a brief article on making a sash belt (Smith and Lee 1975). A series of four children's books called Lucy Learns to

Weave have been published by the Navajo Curriculum Center at Rough Rock Demonstration School (Hoffman and Denetsosie 1974). Describing the dyeing, spinning and weaving processes, these were originally written as introductory English readers for Navajo children.

A small number of articles directed at the conservation and restoration of blankets and rugs is included here because they reflect on the basic structures and materials of Navajo textiles. Kandarian and Kandarian (1977) describe the procedures used by Mabel O'Dell in repairing southwestern textiles. King and Bisbee (1980) also discuss treatment for worn Navajo textiles (see Technology and Conservation [1980:35] for a critical review of these procedures).

The Sociocultural Perspective

While the historical background of weaving and the analysis of particular styles are becoming better established in the literature, it is the role of the weaver and the position of her craft within Navajo society that needs to be more thoroughly examined. Most of the information must be pieced together from various accounts and contemporary analogies as there is yet no synthesis of the cultural context of Navajo weaving for any time period.

Prior to the twentieth century, clothing the family with garments from skins or from handwoven and commercial fabrics was a household activity accomplished by the women of each extended family. Time and energy for weaving were integrated into a woman's full round of family activities--child rearing, food preparation, tending nearby fields, herding livestock, and so forth. There is little evidence for specialization of the craft before the twentieth

century. In contrast to Hopi weaving in which men work inside kivas and produce ceremonial garments as well as utilitarian fabrics according to ritualized traditions, scholars surmise that Navajo weaving has always been a "more-or-less solitary female activity that often took place outdoors, whenever and wherever available time coincided with a desire to weave" (Kent 1976:89).

Specific activities comprising textile production are detailed by a few late nineteenth and early twentieth century observers. In his effusive style, Pepper (1902:35) attempted to supply images of Navajo weavers' lives as well as their work:

Practically all of the blankets are made by the squaws, both old and young, the few men who do the squaw's work making the exception that proves the rule. The squaw cares for the sheep, which are moved in large flocks from pasture to pasture, and great foresight must be exercised in preparing for the future needs of the charges, both in the way of new pastures and also in regard to a sufficient supply of water. The squaw also shears the sheep, and carries the wool to camp; though the latter part of the work sometimes falls to the lot of a burro or pony. The summer camp is placed in the most convenient place, and the hogan, or house, generally consists of a few trees driven into the ground to form a semicircle. The top is covered with brush or blanket, but often, as in the accompanying picture, an arroyo-bench is selected, a part of which forms the back part of the house. In these rough shelters the blanket work is carried on.

The most thorough and reliable research on Navajo weaving was done by Gladys Reichard who lived with a Navajo family for four summers and learned to weave from them. Her rich documentation of the lives of weavers at White Sands, Arizona, near Ganado, and in the area of Thoreau, New Mexico, during the 1930s is published in three books: Spider Woman (1934), Navajo Shepherd and Weaver (1936), and Dezba, Woman of the Desert (1939). Her primary aim was "to present the attitude of the weaver toward her work" (1936:xv). She

succeeded, utilizing a narrative style. Reichard not only recorded how Navajo women felt about their craft, but how weaving was learned and taught, and what criteria were used in its criticism. She also carefully documented the various styles, techniques and materials used in her area. The study she made focuses on a single family of weavers and includes other weavers only secondarily.

A second work that records valuable ethnographic information is Anderson's unpublished master's thesis (1951) which was modeled after O'Neale's study of Yurok-Karok women's views of basketmaking (1932). Anderson interviewed 31 Ganado, Klagetoh and Wide Ruins weavers in the 1940s. He was especially interested in the weavers' views of certain designs but also gathered information on how weavers learn, types of cooperation between weavers, the role of men, and various outside influences on weaving.

The single ethnographic source based on original material collected since the 1940s is Noel Bennett's The Weaver's Pathway (1974). This book deals with native beliefs concerning a specific weaving trait, the so-called "spirit line." Interviews with seventeen Navajos from the western reservation provide clarification of the significance of the tiny woven line that often is inserted at the corner of a bordered rug.

Before we return in the ensuing chapters to the socio-cultural perspective of which the present study is an example, a final group of studies concerned with Navajo weaving should be discussed. A review of the literature that deals with weaving on an interpretive level through aesthetic, psychological or structural analyses follows.

Art and Aesthetics

The anthropological study of art encompasses many approaches--from evolutionary schemes to the search for a "modal personality" and "ethos" of a culture, from functional studies of artist-as-cultural-broker to structural analysis at the symbolic and subconscious levels. While Navajo textiles, whether historic garments or commercial rugs, are increasingly recognized as objets d'art as well as cultural artifacts (witness the popularity of their exhibition in art museums and the the high prices of textiles at Sotheby Park-Bernet and Christie's auctions), their study as such has been distinctly limited.

While Franz Boas (1927) emphasized technical skill and the emotional content of primitive art, Alfred Kroeber was the first anthropologist to propose the study of style as a focal point for anthropological studies of art--"the essence of an art is not its content but its style" (1944:97). He advocated the careful definition of cultural styles and the study of their temporal and spatial development. Motifs, layout and materials utilized in Navajo textiles continually underwent change in the nineteenth and twentieth centuries. This evolution of style is examined within historic context by Mera (1948), Wheat (n.d.) and Kahlenberg and Berlant (1972; Berlant and Kahlenberg 1977). Both Mera and Wheat approach their subject from a technical and empirical standpoint, analyzing and comparing the formal aspects of blanket and early rug design. Their design seriation schemes are especially useful in evaluating undocumented specimens. In contrast, Kahlenberg and Berlant augment

their study with the analysis of the emotional and presumably subconscious elements in blanket design, and thus present a more personal and subjective view of textile art. For example, speaking of early striped blankets, they write, "They have a force and color energy that is full and exuberant but always under control" (1972:16, 19). The utility of this type of description is less clear.

While many authors have suggested that historical events in the Navajo's past have profoundly affected their weaving and are reflected in style changes, a thorough examination of this thesis has never been accomplished. Kahlenberg and Berlant, for example, suggest, "... the spiritual and social reverberations of ... contact can be sensed in the development of the blanket" (1972:15); and "As the Navajo culture moved from calm, complete self-confidence to total surrender and domination by a foreign culture, it was not at all surprising to find the emergence in the 1880s of an explosively 'expressionistic' style" (1972:20).

A current trend in the formal analysis of ceramic vessels is that of "symmetry analysis," developed by Dorothy Washburn (1977) in order to discover regularized cultural principles in the graphic arts, especially as applied to pottery. Detailed analysis of pattern structure is proposed as "a viable way to detect and measure changes within the art subsystem" (1977:8). In a pioneering effort, Kathleen Bennett is now undertaking a study of Navajo textiles using Washburn's symmetry analysis (personal communication, September 1982).

As Barnouw (1973:394) notes, the worlds of the anthropologist and the art historian often converge in the realm of Culture and Personality studies. The primary question raised in many such studies is "Can one learn something about the modal personality tendencies of a particular society from an analysis of that society's art?" Although rather outmoded now and based on little original fieldwork, two such studies focus upon the Navajo and include weaving within their scope: George Mills' Navaho Art and Culture (1959) and Evelyn Payne Hatcher's Visual Metaphors: A Formal Analysis of Navajo Art (1974).

In another psychological study currently in progress, the cognitive skills acquired through the process of weaving are being examined (Rogoff ms.; Mary Gauvain, personal communication, 1982). This cross-cultural research project involves Navajo weavers and Anglo school children in a comparison of the ways in which woven patterns are manipulated and reproduced. The aim of the study is to examine the consequences of nonschooled activities (such as weaving) and schooling on cognitive processes.

In his book, Language and Art in the Navajo Universe (1977), Witherspoon attempts to "crack the symbolic codes" of both language and art from the Navajo perspective. Unfortunately his endeavor is flawed by historical inaccuracies, ambiguity, and the very "airy generalizations" (1977:ix) that he says he attempts to avoid. In a discussion of Navajo worldview seen through blanket designs, he exemplifies "weaving when it was in its late formative stage and before white traders started to have significant influence" by a

modern Wide Ruins rug, an 1890s Germantown rug, and a late nineteenth century women's style blanket (1977:163). Much of the interpretation is inconsistent: "Previously I have referred to red as an active color. It can also be a static color" (1977:165). Moreover, glosses such as the following do not allow for extant variation: ". . . nearly all Navajos are artists and spend a large part of their time in artistic creation. All Navajos are singers, and most Navajos have composed many songs . . . a majority of Navajo women over thirty still weave" (1977:153). Finally, rather than relying on firsthand information from Navajos, Witherspoon draws upon the highly subjective writings of Kahlenberg and Berlant (1972; Berlant and Kahlenberg 1977). In seeking the deep structure and meaning of Navajo weaving, Witherspoon has come full circle and merely imbues it with bilagaana notions, likening it to the work of abstract painter, Jackson Pollock (Witherspoon 1977:174-177).

Summary

In this chapter a review of the relevant literature concerned with Navajo weaving reveals an emphasis on historical and technological studies. The emphasis on descriptive ethnography and reconstructions of culture history by anthropologists during the early part of this century is reflected in studies of weaving. Weaving was introduced to the Navajo at least by the mid-seventeenth century and subsequently underwent significant changes as the Navajo were exposed to influences of the indigenous Pueblo Indians, and of

the Spanish, Mexican and Anglo people who traveled through or settled in the Southwest. Weaving at the turn of the nineteenth century and continuing into the twentieth maintains the flexibility demonstrated by its early history. Numerous innovations and changes occurred as a response to commercial demands and to weavers' own imaginations and ingenuity.

Sociocultural research on weaving is represented by Reichard's work of the 1930s, primarily through participant-observation in the camp of a single extended family in the Ganado/Cornfields area. A synchronous study, Reichard's work does not substantially discuss acculturation's effects on weaving, although it provides a baseline for the present research.

Between the 1940 and the 1960s, Navajo ethnographers moved away from historical and descriptive studies of material culture, applying structuralist and other constructs to social phenomena, and focusing especially upon such issues as social organization, enculturation and acculturation, and religious and political practices. Growing interest in ecological concerns has recently prompted new interest in material culture. Since the 1960s research has returned to subjects such as art in anthropology, artists in cultural context and, particularly, ethnic arts in a changing world (cf. Haselberger 1961; Graburn 1976; Silver 1979). The present study is related to this movement and represents an effort to examine a modern craft activity, already much studied in traditional and historical context, and to place it within contemporary cultural context. We now turn to a description of the setting for the present study, the

context for behavioral patterns observed among a particular group of Navajo people at a specific time and place, the modern weavers of Kinlichee.

CHAPTER 3

KINLICHEE AND THE NAVAJO RESERVATION

Encompassing more than 16 million acres (65,000 square kilometers) in the states of Arizona, New Mexico and Utah (Navajo Tribe 1980:1), the Navajo Reservation is the largest Indian reservation in the United States. With an overall population of approximately 160,000 in 1980 (1980:v), the Navajo tribe is the most populous native American group in North America.

The Navajo Reservation is divided into five administrative agencies--Western, Chinle, Fort Defiance, Shiprock and Eastern. These are subdivided into a total of nineteen grazing districts. The grazing districts, each comprising approximately one million acres (Bailey 1980:25), were formed in 1936 for the purpose of administration and management of range resources. (Figure 3.1).

The Navajo Tribal Council was formed in 1923. Several years later, smaller administrative units called "chapters" were formed in certain parts of the reservation. At present the reservation is comprised of 102 chapters, representing grassroots-level political and economic systems and an incipient centralized community organization. Each chapter has a president, vice president and secretary, and sends one delegate to the Navajo Tribal Council. Traditional life did not include centralized government nor a nuclear community

structure; chapter organizations and government-supported housing are clearly a major change (Bingham and Bingham 1976).

The chapter of Kinlichee is located in the south-central region of the reservation, in Grazing District 17 of the Fort Defiance Agency. It was formally established in 1929, although Navajos have lived in the area for well over a century. Navajo occupation during the nineteenth century was recorded by Kit Carson's men who established Camp Florilla, a shortlived outpost and remount camp, at Kinlichee in the 1860s (Van Valkenburgh 1941:56, 84). Prior to the Navajo advent to the southwest, the Anasazi people inhabited the Kinlichee area. The Kinlichee Ruins, earlier known as Pueblo Colorado--the Spanish translation of the Navajo, meaning Red Town, attest to this earlier occupation, from about A.D. 500 to almost 1350. A group of Basketmaker pithouse villages, a series of small masonry pueblos, several Great Kivas, and a large pueblo are located along Kinlichee Wash (Olson n.d.). Since the 1960s the ruins have been administered as a tribal park, with interpretive panels and picnic facilities.

The Natural Environment

Physiography

Kinlichee Chapter is about 45 kilometers long and 32 kilometers wide at its widest points, approximately 1440 square kilometers in area. It is situated on the southwestern slope of the Defiance Plateau. Topographic elevation ranges from 2040 meters above sea level at Kinlichee Wash to 2530 meters at Fluted Rock in

the northern part of the chapter. The area is dissected by a series of northeast/southwest trending drainages and small canyons cutting through the local sandstone strata. These features include Kinlichee, Scattered Willow, Black Soil, Sage House, Lone Tule, Fish and Wide Ruins Washes, and Bear Canyon. All contribute to the larger Wide Ruins and Pueblo Colorado (Ganado) Washes that drain southwest into the Little Colorado River. (Figure 3.2).

The landscape around Kinlichee is not as deeply dissected as the Canyon de Chelly area to the north nor the Tsegi system near Kayenta, further to the west; nor is the area as dramatically arid and sculptured as Monument Valley. Nevertheless, definite and serious erosion is taking place, especially evident in Kinlichee Wash where a series of rock and cement conduits are seasonally thwarted by floodwaters. Overgrazing is apparent in the reduced grasslands of the area and, as throughout the reservation, it is the major cause of soil erosion.

Climate

Along with the rest of Arizona, Kinlichee has a biseasonal weather regime consisting of winter and summer precipitation, fall and spring droughts (Lowe 1964:8-10). The U.S. Department of Agriculture summarizes the climate of Ganado, ten miles west:

. . . a mean annual temperature of 48.7 degrees, a mean maximum of 65.1 degrees, and a mean of 32.3 degrees. The average annual precipitation is 11.48 inches with snowfall averaging 28.9 inches. The growing season is about 110 to 130 days. The average rainfall during the growing season is 5.5 inches. (U.S. Department of Agriculture et al. 1978:1).

Navajo life has always been much affected by seasonal changes, but modern buffers between people and climate are reducing

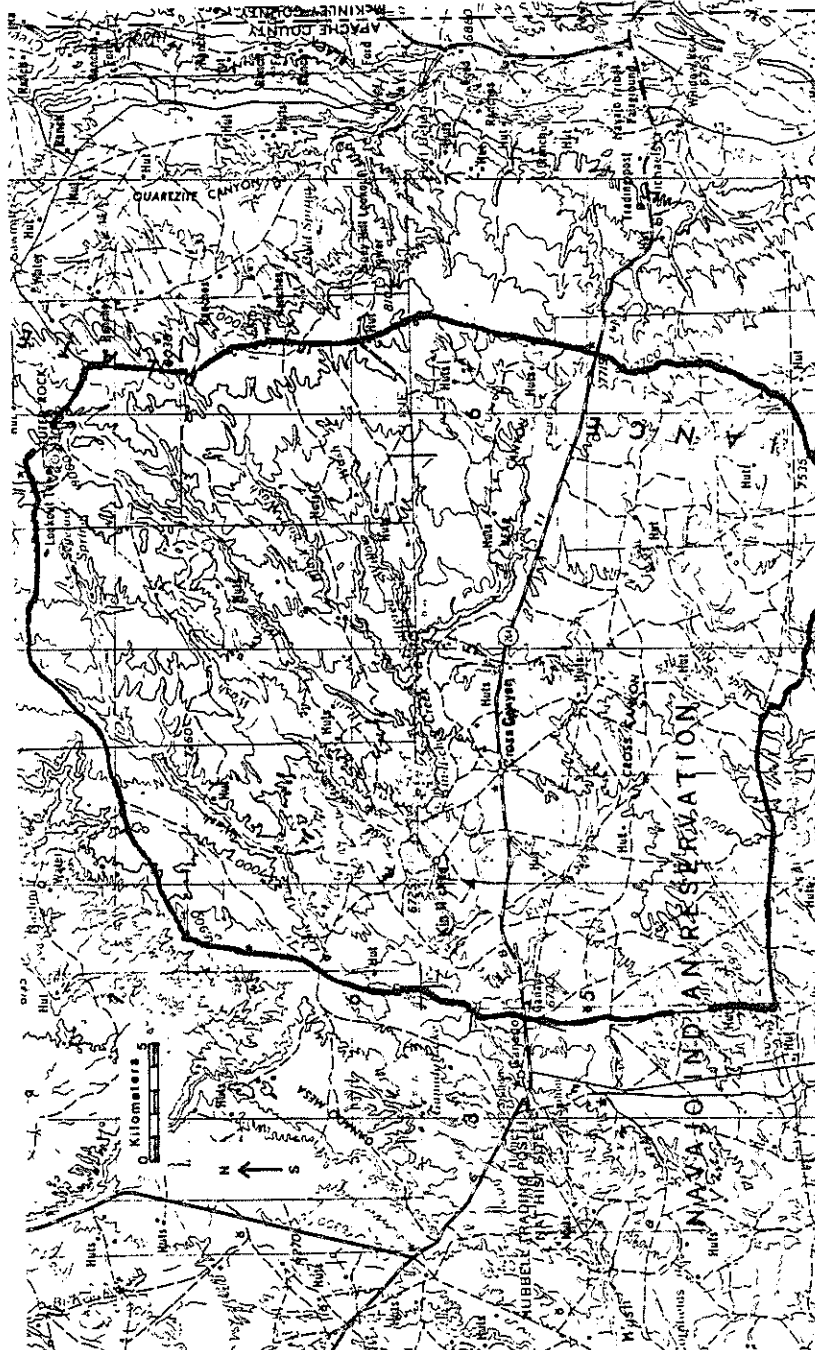


Figure 3.2 The Chapter of Kinlichee

Source: U.S.G.S. topographic map, Gallup, New Mexico; Arizona.
1954, revised 1970. 1:250,000

the effect of seasonality. Traditional religious life continues to revolve around the passage of seasons. Certain ceremonies are supposed to be held only at certain times of the year, but at least two ceremonies at Kinlichee during 1981 were held at the "wrong time" according to a few of the most tradition-minded community residents. Farming, sheep husbandry, pinyon crops and other traditional pursuits reflect seasonal schedules, while wagework shows less seasonal fluctuation and somewhat more steady income on a year-round basis. Weaving at Kinlichee has adapted to the microclimate and to women's seasonal activities. Many people weave outdoors in the summer and moved indoors during the winter. During the summer, weaving has had to share time with farming, sheepherding and other warm-weather activities; in the winter there has usually been more time to weave. The role of climate and seasonal changes are discussed in more detail in Chapter 6.

Vegetation and Fauna

Kinlichee has the moderate cover of vegetation characteristic of the relatively arid Navajo Reservation (Kluckhohn and Leighton 1974:45). Pinyon pine, juniper, sagebrush and native grasses grow in the sandy loam-type soils of the lower elevations. Above 2000 meters, open stands of ponderosa pine are found. Oak, aspen and fir also grow in the higher elevations. Small-scale dry farming takes place in the moist wash bottoms, corn being the predominant crop, accompanied by squash, beans, chiles and other suitable garden crops. Numerous bushes, small plants and weeds are locally available as natural dye sources (cf. Bryan and Young 1940).

Wildlife reported in the area includes coyotes, jackrabbits and cottontails, skunks, badgers, prairie dogs, kit foxes, rock squirrels, pocket gophers, woodrats, house mice and bats. In the higher elevations mule deer can be seen and black bears, bobcats and mountain lions have occasionally been reported (Halloran 1964). The numerous birds include, but are not limited to, ravens, owls, hawks, mourning doves, Say's phoebes, titmice, rock wrens, juncos and sparrows in the grasslands and juniper-pinon country; and, in higher areas, pinyon and Steller's jays, chickadees, nuthatches, woodpeckers and mountain bluebirds (Mayes 1977).

More dominant on the landscape than the wildlife are the herds of sheep and goats, cattle and horses. Relatively good grazing land is available and thus sheepherding has been a major part of the economy, as it has elsewhere on the reservation. Until recent decades locally raised sheep provided most of the wool for Kinlichee weaving.

Settlement within the Chapter

The population at Kinlichee in 1976 was reported as 1986 (Bingham and Bingham 1976:29), although only 966 Navajo were counted in the much contested 1980 federal census (Faich 1981). Difficulties in establishing precise and accurate population statistics are not unique to Kinlichee (see Johnston 1966 for an analysis of the problems inherent in Navajo census material). The 1978 voter registration for Kinlichee Chapter lists 722 adults, including 379 women and 342 men. Since that 1978 census was made, at least

twenty-four people have died, five of them female, leaving an estimated voting population of 698 adults (Table 3.1). Age distributions for the Navajo people indicate that approximately 60 percent of the population is over the age of sixteen (Navajo Tribe 1980:2, Diagram A). Thus a very rough estimate of Kinlichee's actual residents might be as low as 1200 or as high as 2000.

In keeping with other Navajo communities (Kluckhohn and Leighton 1974:87-89), settlement at Kinlichee is dispersed. The average density on the reservation is two to three people per square kilometer (Navajo Tribe 1980:2). Only a few houses are located near the central community house. Hogans, an increasing number of modern-style frame houses, and smaller outbuildings are scattered through the area, each cluster of buildings representing the winter, summer or year-round home of a household group (cf. Lamphere 1977:69-85). The area is relatively underdeveloped, traversed by a paved highway, one other paved road and a network of dirt roads. Electricity is only available to a minority of households and water must be hauled from one of several wells.

The centralized facilities at Kinlichee revolve around the chapter house, an administrative center that provides space for community meetings and projects, and for chapter officials' offices. A once-popular coin-operated laundry at the chapter house has been inoperable for some time. A preschool, hay warehouse and Christian church complete this complex.

A BIA boarding school, built between 1935 and 1940, is located nearby (Threinen 1981:109). When in full operation, the

TABLE 3.1

DISTRIBUTION OF KINLICHEE POPULATION BY AGE AND SEX
FOR 1981

(Excluding those under 18 years)

Age Group	Males		Females		Total	
	Number	Percent	Number	Percent	Number	Percent
under 18 ^a	--	--	--	--	--	--
18 - 25	35	5.0	52	7.4	87	12.5
26 - 35	83	11.9	109	15.6	192	27.5
36 - 45	64	9.2	75	10.7	139	19.9
46 - 60	67	9.6	87	12.5	154	22.1
over 60	57	8.2	61	8.7	118	16.9
unknown ^b	4	0.5	4	0.5	8	1.1
Totals	310	44.4	388	55.6	698 ^c	100.0 ^d

Adapted from The Navajo Nation 1978 Voter Registration, Precinct Master Register, Poll #079 Kinlichee, 7/11/79, Window Rock, Arizona.

^aThe Voter Registration included only those individuals over the age of 18; data were not available for those younger. Tribal statistics for 1980 indicate that approximately 38.5 percent of the population is under the age of 16 and an additional 20.6 percent are between 16 and 24 (Navajo Tribe 1980:01). At Shonto in 1955 50.9 percent of the population was 15 years or younger (Adams 1963:53, Table 1). Various other census reports (Young 1958, 1961; Johnston 1966) indicate that roughly 50 percent or slightly more of the population is under 18. Thus, this table represents approximately half of the total Kinlichee population for 1978.

^bAge is not listed in the Voter Registration record.

^cPeople deceased between 1978 and 1981 were deleted from the record; this amounts to 24 individuals from the 1978 total of 722.

^dSum of columns do not equal totals because of rounding.

school hires 30 people and has approximately 200 students from kindergarten through eighth grade. Eighty percent of the students generally come from Kinlichee. The school was closed in August 1980 for structural renovation. During 1980-81 it was open on a day-time basis for kindergarten through second grade students. It was reopened in fall 1981 on the same basis for 62 students, with 18 employees including seven from Kinlichee and others from adjoining chapters of Ft. Defiance, Nazlini, Ganado and Steamboat. Six elected Kinlichee residents serve on the chapter's school board which provides a community link with the BIA. Older school children and those not attending the Kinlichee School may attend the public Ganado High School, the private Catholic schools at St. Michaels, or one of the many BIA boarding schools at Chinle, Many Farms, Toyei and other parts of the reservation. A number of students attend the Intermountain School in Utah, also operated by the Bureau of Indian Affairs.

Two small trading posts are located roughly at opposite ends of the chapter and serve as general stores, gas stations, post offices and, like the chapter house, as community gathering places. Cross Canyon Trading Post was established in 1916 by trader C.C. Manning.¹ The original post was burned down and subsequently rebuilt on a new site about 1931. The present trader, John Barr, bought the post in 1966 from Elmer T. Vann, who had acquired it from Manning in the 1920s. The small store sells basic foods, supplies and drygoods. Few sheep are bought or sold at Cross Canyon. The most purchased in a season since 1966 was 32. The post does, how-

ever, have a lively business each fall in pinyon nuts which the local people gather in the nearby forest. In the fall of 1981, 15,149 pounds of pinyons were purchased at Cross Canyon (Barr, personal communication, February 1982).

Few rugs have been bought at Cross Canyon since 1961. In the 1960s rugs were sold at auction at the chapter house and this discouraged their sale to traders. In 1967 Hubbell Trading Post in Ganado again began seriously buying and selling rugs. As Hubbell's developed a strong clientele and as the reservation road system was improved, participation in the rug market became an impossibility at Cross Canyon. Silver jewelry and other handcrafts were apparently never part of the trading post inventory. Tourist trade has always been low; the trader estimates perhaps five tourist sales each year (Barr, personal communication, 1981).

Woodsprings Store was built in 1962 by the present chapter councilman and his wife, Guy and Mary Morgan. On the now-paved road between Ganado and Nazlini, the store serves as gas station and post office, and sells soft drinks and sundry food items. Rugs and other handcrafts were never bought nor sold at Woodsprings. Another small store was opened in 1965 next to the Shell service station and garage on the main highway, but it closed four or five years later. Like Woodsprings, it was Navajo-owned and operated and never dealt with craft items.

The chapter house area, simply referred to as Kinlichee, and the immediate areas around each trading post, Cross Canyon and Woodsprings, represent a tripartite geographic division within the

central, most populated region of the chapter. In addition, there are numerous Navajo place names that designate smaller neighborhoods. Some of these are further divisions of Cross Canyon, Woodsprings or Kinlichee proper; others are outside of these roughly defined areas in the even less densely populated surrounding area. The extent to which chapter members identify with one of these subcommunities and the relative importance of these affiliations compared with chapter membership are not presently known. Without further field study, it is not possible to assess the nature and significance of such subcommunities, if indeed that is what they are.

Following Lamphere, I have found that examining chapter membership provides "the best starting point for defining a community" (1977:15). Using Aberle's discussion of a community as "a set of shared facilities used by a Navajo population" (1961:106), this study considers residents from all three districts and the outlying areas who use the chapter house, preschool, elementary school, sheep dip, well system and governmental offices at Kinlichee. However, just as Lamphere found at Copper Canyon, it has been necessary to expand the sample beyond the basic chapter census when residence groups or individuals outside the chapter boundaries were found to have distinct spatial or kinship ties with families on the census list. An example of this is the inclusion of people who may summer at Kinlichee but spend their winters at Klagetoh or in another area. As exemplified by Levy's treatment of western Navajo communities (1962) and Lamphere's on the east (1977), kinship and

natural features were ultimately considered in the search for community boundaries, over and above the more arbitrary political designations.

Socioeconomics at Kinlichee

There is a reservation-wide trend away from the pastoral-agricultural base that formed the traditional socioeconomic activities of the Navajo. The Navajo Office of Economic Development reports:

Traditionally, the Navajos subsistence was supported by small herds of sheep and goats, which were processed for the meat for food and for the wool used in weaving rugs and blankets. Garden crops were raised for family use. Supplemental work was sought when needed, but seasonable work in railroad and migratory-labor crews is drying up, and other temporary work opportunities are few and far between.

The traditional Navajo economic activity is no longer possible for many. As a result of rapid population growth on a fixed and deteriorating land base, there is no longer sufficient grazing lands to adequately support all of the Navajo people in their traditional manner. While over 65% of the Navajo people still live on land allocated them for grazing purposes, only 35% are employed in grazing activities in any full time effort receiving a reasonable return. This situation forces Navajo society to turn away from traditional pursuits and toward the opportunities offered by the technologically advanced market-oriented society which surrounds it. (Navajo Tribe 1974:21-22).

In a 1972 study, the Navajo Tribe examined the usual occupations of the Navajo people, whether or not employed at that time.

An analysis of the results follows:

The professional and managerial category was listed as usual occupation by 1,700 persons, or 5.3% of the labor force. This category, claimed by 1,000 women and 700 men, includes tribal officials and a large portion of the tribal and Office of Navajo Economic Opportunity staff.

The remaining nontraditional occupational categories were represented by only small percentages of the labor force. Most notable among these is the sales category which occupied only 350 persons (1.1% of the labor force). Again, this is not

strange when one considers the nature of the Navajo economy. The primary trade activity is conducted at trading posts, general merchants, and other stores scattered throughout the reservation. Most of these are operated by non-Navajo owners who require very small staffs, if any.

Over one-fifth of the labor force reported occupations classed as traditional--6.5% in agricultural and 15.9% in non-agricultural occupations. The agricultural occupations are concerned with the raising of livestock. The traditional economy is based almost entirely on livestock--as a source of food, cash income, and raw material (wool) for the major non-agricultural economic pursuit. An estimated 2,200 persons (equal number of men and women) are usually occupied in these agricultural pursuits.

About 5,050 persons, mostly women (4,750) are engaged in traditional, nonagricultural activities. Considerably more diverse than the agricultural, these pursuits include rug weaving, silversmithing, and religious-medical occupations. However, the vast bulk of the labor force in this category are rug weavers. The Navajo have evolved a distinctive design of handwoven wool rugs which are very attractive to tourists. The sale of these colorful items of native craft provides a major source of income to Navajoland. A second popular craft is the manufacture of silver and turquoise items of jewelry. This latter craft, as well as the practice of medicine men, is dominated by the estimated 400 men in the traditional non-agricultural category. (Navajo Tribe et al. 1972:17-18).

Aberle has characterized the economy as one which depends upon "a multiplicity of income sources, no one of which yields a stable and predictable income" (1969:236). Lamphere notes:

The major characteristic of the economy is its mixed nature. Nuclear families may have one source of income, but the general tendency is for an extended family residence group to depend on a traditional source of income (livestock and/or weaving) in addition to one or more nontraditional sources (railroad work, other wage labor, or welfare). (1977:24).

According to the 1970 U.S. census, average per capita income was \$753 per annum for the Navajos, compared with \$3700 average annual income nation-wide (Navajo Tribe 1974:21). More than 40 percent of the Navajo population receives some form of welfare assistance according to BIA statistics (1974:28). As reported in 1974, on a reservation-wide basis 61 percent of Navajo homes are

without electricity and 80 percent were without water and sewer (1974:68). Living conditions, in other words, are well below U.S. standards, despite progress in the past several decades.

Kinlichee Chapter is neither so isolated nor so familiar with the bilagaana world as to be considered unusual. For instance, it is situated somewhere between the extremes of Fruitland, an extremely acculturated community (cf. Sasaki 1960), and Navajo Mountain, a conservative and traditional district (cf. Shepardson and Hammond 1970). Kinlichee provides an example of a reservation community that exhibits a mixture of traditional and introduced economic activities. Some Kinlichee families continue to herd sheep and goats, taking them to camps higher on the forested Defiance Plateau during the summer. Many, however, have discontinued this practice and remain in Kinlichee throughout the year. Cattle raising appears to be increasing slowly as it is elsewhere on the reservation (cf. Downs 1972). Small-scale farming and gardening for home use and local sale are undertaken, with corn the major crop. The Tribe estimates that approximately one third of all Navajo families still gain some livelihood, however meager, from livestock and dry farming (Navajo Tribe 1974:28-29). While quantitative data are not available for the Kinlichee area, this figure appears to be an appropriate approximation.

While organized business is scarce in the chapter, traditional services and local commerce are present, with, however, signs of diminishing participation. A number of medicine men are available to perform various ceremonies and rites. Likewise, several

hand-tremblers (diagnosticians) and women who specialize in herbal medicine reside at Kinlichee. The services of stone masons, carpenters and other tradespeople are available for hire. Moccasin-making, rug and basket-weaving, silversmithing and other handcrafts are practiced to a minor extent for local consumption as well as for outside trade.

Wagework, though often only sporadically available, has become a major source of household income since the 1930s. Only a few jobs, however, are available locally, at the chapter house through the Tribal Works program, the BIA boarding school, the preschool, and at the two local trading posts, hardly enough jobs for a community of approximately 750 adults. A number of men are hired by the Navajo Forest Products Industries to work in the nearby woods of the Defiance Plateau. The railroad was a common employer in the past; although railroad jobs have decreased, a few Kinlichee men still receive retirement benefits. Most employment today is found in nearby towns, particularly in Window Rock and Fort Defiance. Many Kinlichee residents commute daily to work outside the community; others, especially young families and single individuals, move to their place of work and return to Kinlichee only on weekends.

Welfare payments are issued in the form of Social Security, Supplemental Security Income, Aid to Dependent Children, surplus commodities, and other government programs. Unemployment at Kinlichee, as everywhere on the reservation, is extremely high. In 1974 the tribe estimated that unemployment ranged from a base of 35

percent to as high as 65 percent (Navajo Tribe 1974:70); in 1979, unemployment was reported at 31 percent (Navajo Tribe 1979:16).

There is evidence, particularly among the young, that employment patterns will continue to change on the reservation. Residents at Kinlichee participate in many of the training programs offered through the tribal and federal governments. On a reservation-wide basis, on-the-job training was the most prevalent form of occupational preparation in 1972 (74 percent of the labor force), but an additional (and apparently increasing) 14 percent of the labor force gained job skills through formal vocational-technical education programs (Navajo Tribe et al. 1972:19). The Office of Navajo Economic Opportunity (ONEO), created in 1965, administers programs such as the Neighborhood Youth Corps, Navajo Pre-Vocational Training Program, and Manpower Training (Navajo Tribe 1974:52), all of which receive active participation by Kinlichee people.

Related to expanding economic activities on the reservation, energy and resource development training is being established in the building and trade crafts for boilermakers, cement finishers, electricians, ironworkers, millwrights, pipefitters, welders, sheet metal workers and teamsters (1974:21). It is interesting to note that young women as well as men are taking advantage of some of these originally male-oriented opportunities. The federally-supported Comprehensive Employment Training Act (CETA) program, administered through the tribe's Division of Labor, provided training and education to 6019 Navajo people in 1979 (Navajo Tribe 1979:15); in 1980, CETA employed 8255 people (Navajo Tribe 1980:08).

Programs included training in secretarial, clerical, data processing, child care, food preparation, construction and trade, mining, and health fields, among many others.

Education on the reservation, and specifically for Kinlichee children, has improved markedly in the past several decades. The average level of educational attainment for Navajos, 6.5 years, compares poorly with the U.S. average of better than 12 years. Despite discrepancies with nation-wide averages the median level of education has nearly doubled during each decade since 1940 (Navajo Tribe 1980:9). Student enrollment in colleges and universities also demonstrates impressive increases. In 1978-79 there were approximately 3633 students enrolled in 157 colleges and universities in 31 states including the reservation schools of the College of Ganado and Navajo Community College (Tsaile campus, Shiprock branch and extension programs) (Navajo Tribe 1979:1). In the following academic year, more than 4250 were enrolled in college (Navajo Tribe 1980:10). The tribe has sponsored symposia and workshops in career development, health care, energy, resources, management and development alternatives for the Navajo Nation, "to help guide student interest toward the various professional fields" (1980:9). A tribal scholarship fund helps to pay the costs of post-secondary education.

Other Communities in the Region

At present the chapter of Kinlichee offers few organized services or retail businesses to its residents. Neither of the two

trading posts are heavily-stocked, nor do they buy or sell local handcrafted products. The only other organized business in the chapter is a gas station and garage. To shop for groceries, clothing or other major supplies, to do laundry by machine, or to market their crafts, the people of Kinlichee must leave their community.

District 18, directly to the east of Kinlichee, comprises several of the most rapidly developing communities on the Navajo Reservation. The tribe has officially designated Window Rock, Fort Defiance and Navajo, for example, as major growth centers (Navajo Tribe 1979:26). To the west and even nearer to Kinlichee is one of the reservation's six secondary growth centers, Ganado. The proximity of such centers and the lack of commercial growth at Kinlichee means that Kinlichee is a potential "bedroom community". Most wagepaying work, services, and businesses are located outside of the residential community.

Migration from rural areas such as Kinlichee to urban centers throughout the American west, to border towns near the reservation, and to growth centers on the reservation is increasing, especially among younger Navajos. This reflects the growth of the job markets and the appeal of housing and other facilities in both off-reservation and specific on-reservation locales. At Kinlichee, like Copper Canyon (Lamphere 1977:9) and elsewhere on the reservation (Kluckhohn and Leighton 1974), after several years away, many people return home. Today, however, an increasing number are remaining in newfound homes, making occasional return visits, but

finding permanent jobs, raising families and settling into more developed communities.

Summary

The chapter of Kinlichee was chosen as an appropriate place in which to conduct a study of contemporary weaving because of its intermediate position with regard to individuals' levels of acculturation. The preceding description of Kinlichee on the Navajo Reservation puts the community's relative degree of isolation and its points of contact with surrounding, developing areas in perspective. Kinlichee as a whole is neither as acculturated as such highly influenced areas of Fruitland and Shiprock, nor as isolated as the community of Navajo Mountain. While most Kinlichee families continue to live in widely spaced, under-developed settlements, increasing numbers of people, particularly in the younger generation, are commuting to wage-paying jobs outside of the community. Few families rely entirely upon livestock and farming for their livelihood, although such traditional economic pursuits may contribute to their total income. The level of education is rising and while unemployment is extremely high at present, vocational training programs are increasing the people's marketable skills. The chapter itself offers little in terms of employment, retail goods and services, or modern recreation facilities. Traditional religious ceremonies continue to be performed and certain handcrafts are practiced. It is within the context of this community in transition that the survival of women's weaving will be examined.

NOTES--CHAPTER 3

1. In 1906, a Mr. Senter collected a group of rugs and a rug fragment at Cross Canyon. These were in turn donated to the University of Colorado Museum in 1974 by Florence Hawley Ellis, his former daughter-in-law. It is unclear whether Mr. Senter bought these rugs from a local trading post or directly from a Navajo person. Wheat (personal communication, 1982) indicates that J.L. Hubbell may have operated a trading post in the Cross Canyon area before Manning established his. To date, no records of this post have been found.

CHAPTER 4

RESEARCH AT KINLICHEE

Fieldwork was conducted during the summers of 1979, 1980 and 1981, and intermittently throughout academic years 1979-1980 to 1981-1982. During the first two summers (Phase I), I was employed by the Navajo Tribal Museum to research their collection of Navajo textiles which includes a large proportion of rugs woven since 1960. Kinlichee was included in this reservation-wide study and, because of its proximity to Window Rock and the museum, I visited there frequently. The final summer, 1981 (Phase II), was spent in residence at Kinlichee, in a camp belonging to the daughter and son-in-law of one of Kinlichee's prominent weavers. During 1980-81 ten weekend trips to the reservation were made at six-week intervals in order to attend the Crownpoint Navajo rug auctions in the Eastern Navajo Agency (Phase III). This schedule enabled me to keep in touch with a number of Kinlichee people and to observe activities at Kinlichee, if briefly, on a year-round basis. During 1981-82 an additional three trips to Kinlichee and vicinity each lasted one to two weeks (Phase IV) and provided time to focus on specific questions encountered during the course of data analysis. Table 4.1 summarizes the research schedule.

Data Collection and Organization

The first phase of research, while I was working for the Tribal Museum in Window Rock, provided an initial acquaintance with eleven Kinlichee weavers, their families and associates. Data were gathered largely through unstructured interviews with weavers and their families and reconnaissance surveys of the area. Whenever possible I took a museum rug made some years earlier by the weaver for her comments and to focus the conversation. It was fortunate that in the 1960s a number of Kinlichee weavers had woven rugs that became the property of the Navajo Tribal Museum; these were the weavers on whom I concentrated during Phase I. When a weaver or other consultant did not speak English, another member of the family or a visiting relative generally provided translation. Only on a few occasions during the first two summers did an interpreter accompany me.

TABLE 4.1
RESEARCH SCHEDULE

PHASE I	Summer 1979, Summer 1980	Navajo Tribal Museum, Window Rock, AZ
PHASE II	Summer 1981	Kinlichee, AZ
PHASE III	1980-1981, weekend visits at six-week intervals	Crownpoint, NM, and Kinlichee, AZ
PHASE IV	1981-1982, three visits of one-two weeks	Kinlichee, AZ
TOTAL	10.5 months	Navajo Reservation

During Phase II, informants were selected with the advice of the weavers already interviewed, traders and chapter officials, and through the names of weavers obtained from trading post records and from genealogies. The use of a 1978 voting registration census list for the chapter allowed me to check the extent of my sample. In sum, I interviewed and visited with 67 weavers and their families, giving me information concerning a total of 162 weavers at Kinlichee. Important information was gained not only from weaving families but also from those who did no weaving. Sales records at Hubbell Trading Post provided 25 additional weavers' names, bringing the total number of known Kinlichee weavers to 183.

During the first two months of Phase II, I visited weavers on most weekday mornings in the company of a 23 year-old interpreter, the daughter of one of Kinlichee's prominent weavers (the sister of the woman from whom we rented our residence). In meeting a new person we usually explained that I was interested in the weavers in the chapter and that I was writing a "school paper" about them. On the first visit I was generally able to ascertain how long the woman had been weaving, from whom she learned, who were the weavers in her family, where she marketed her rugs, whether she was weaving at the time and what her rugs looked like. Included in my observations at each interview were the style of the house and its facilities, the types of vehicles and other possessions, the sorts of activities occurring at the time, and the general milieu of the household. Depending upon the weaver's available time and her temperament, a genealogical chart for her family was constructed on

the initial or on subsequent visits. The same was true of taking photographs of the weaver and her equipment.

Subsequent visits to a weaver's home allowed me to check the progress of her weaving, to confirm previous observations of tools, equipment and techniques, and to discuss further her attitudes towards the craft. As expected, visits following an initial introductory session were progressively relaxed and informal. Observation and participation in household activities became far more important in data gathering than structured interviewing. During the course of many visits I helped prepare meals, stirred dye pots, wound yarn skeins into balls, tended crying babies and numerous other small tasks. Table 4.2 indicates the number of single and repeated visits made with weavers, both at home and outside the home.

TABLE 4.2
FREQUENCY OF VISITS WITH WEAVERS

N = 67	At home ^a	Outside home ^b
Once	15	8
Two to five	24	2
Six to Twelve	11	2
More than 12	5	0

^aWith or without other visits outside the home.

^bIncludes visits at the homes of relatives or friends, at the trading post, store, chapter house or outside of the community.

Weekday afternoons were used to frequent the trading post, to become better acquainted with particular Kinlichee residents, to visit chapter officials and other consultants, and to construct maps, check genealogies and write up the morning's notes. In the evenings I usually caught up on field notes and reviewed the agenda for the next day. Some time was also spent reviewing Navajo vocabulary and grammar.

Many weekends were spent in the company of our "host" family from whom the camp was rented. The most common activity was to go into the mountains and round up their herd of cattle. In typical Navajo fashion, weekends were also the time for going to Gallup for shopping and errands, or for visiting other parts of the reservation.

In the third month of the field season I worked without an interpreter (my former interpreter finished her vacation and returned to her regular job). My Navajo language ability had improved to the point that I could generally make myself understood and could understand the gist of the responses I received. Also, by this time, I was visiting fewer non-English speaking people whom I'd not previously met and there was less need for elaborate explanations of purpose on my part. Members of the family or visiting neighbors filled in when I failed to understand or to be understood.

A daily journal was maintained throughout my time on the reservation. Abbreviated notes were made immediately following any interview or other significant encounter. The notes were amplified and typed later in the day. Rarely were notes made in the presence

of a consultant (with the exception of the interpreter who, in many cases, was helpful in recalling a weaver's statements or other pertinent events).

Genealogies were made with the informants taking an active part in drawing their family tree. Revised versions of each chart were verified by the consultants, their families and by certain key community members. Weavers and non-weavers were noted on each chart. Genealogical charts were constructed for 26 extended families, representing approximately one-third of the registered-to-vote population. The collection of genealogical information provided a framework in which to identify past and present weaving, and to cross-check the sample of the Kinlichee population.

A card file of weavers, cross-referenced to specific data in the field notes, was maintained. This file was also cross-referenced to census lists, trading post patron lists, and other pertinent sources.

Documentary photographs (color slides) of every weaver who permitted them were taken so as to include the weaver's household, her loom and weaving tools, and her techniques of making a rug. A clear request to take photos was always made. While infrequently encountered, any reluctance to be photographed was honored. A number of women wanted to postpone a picture-taking session so that they could change clothes and clean the house. Note was made whenever a weaver changed clothing and was not wearing her everyday clothes in a photograph. A few people joked or made innuendos about being paid for the photographs. With the exception of my hired

interpreter, I was never able to pay a consultant or photograph subject. Instead, prints of my slides were always given to the women. This practice, in fact, often provided a good reason for subsequent visits.

Life at Kinlichee

During the summer of 1981 my husband and I lived in a Navajo camp vacated by a young family who had moved their trailer home to Window Rock in order to decrease the costs of transportation to work and to schools, and for amenities such as electricity, running water and television reception, none of which are available at their Kinlichee camp. They rented us their one-room frame house and octagonal log hogan. Our residence at Kinlichee, frequent presence at the Cross Canyon Trading Post, and attendance at chapter meetings and events such as the annual sheep dipping, were accepted by most of the local people with a combination of reserve and curiosity. Generally, we were assumed to be local school teachers or Public Health Service personnel. Later, I became known as the woman who was learning to weave.

Throughout the duration of the study little resistance from the local populace was shown, largely I think, because weaving is a relatively public activity. The chapter councilman and his wife took particular interest in the project and its potential for helping promote "their" weavers. They introduced me formally to the community at a chapter meeting. In turn, I provided them with a photographic poster about the community's weavers, to be displayed in the chapter meeting house.

In addition to the majority of people with whom I became acquainted through interviews, observations and limited participation, one family provided my husband and me with positions and roles integrated into their own family structure and activities. This was the extended family from whom we rented our house. With the hogan of my "mother" (the mother of the woman from whom we actually rented) located only a few miles away, we were able to visit back and forth between camps. I was taught to weave by my mother. My husband brought firewood, did errands and even laid a cement floor for his "mother-in-law". Through my participation in this family's day-to-day activities--including, for example, peeling potatoes, tending a crying baby, seeking out a medicine man for a sing, attempting to make fry bread, taking mother into town for shopping, listening to a sister's complaints about work, attending a younger sister's all-night puberty ceremony (kinaalda), and going to squaw dances--I gained insights into the family, the community and current Navajo life that might not otherwise have been possible.

Summary

For this study, observation of and participation in community and family activities at Kinlichee provided the basic means of data acquisition during all four phases of fieldwork, from 1979 to 1982. Direct and formally structured interviews were deemed antithetical to the preferred Navajo approach and so an informal manner of visiting with weavers and their families, and watching, practicing and discussing current weaving processes was adopted.

Participant observation was augmented by the analysis of trading post records and the examination of museum specimens.

PART II

CONTEMPORARY WEAVING PROCESSES

CHAPTER 5

LEARNING AND TEACHING PRACTICES

The survival of designs, techniques and entire craft traditions depends upon their successful transmission from one generation to the next. Learning patterns, the means by which skills and aesthetic values are acquired, are an important source of information for understanding certain continuities/discontinuities in twentieth century weaving. This section is an exploration of how the craft of weaving is passed from one person to another, how these people are formally or informally associated, and how the information is modified and used after its transferral.

Navajo Concepts of "Learning" and "Teaching"

The Navajo language contains a number of words that signify "teaching". As Reichard notes, the Navajo method of teaching is by showing (1936:xv). This is reflected linguistically. Among the terms for "to teach" most frequently used at Kinlichee is binabinishtin (binanishtin) which is translated "to show it to him. To show him how, to teach him (by showing him how)" (Young and Morgan 1980:223, including parenthetical statement).

The concept of teaching through demonstration is central to the Navajo way of teaching weaving as well as a wide variety of other activities from child-rearing, cooking and housebuilding to

conducting religious ceremonies and making sandpaintings. Traditional socialization of Navajo children is accomplished with parental advice and example rather than a series of verbal instructions to be obeyed. Leighton and Kluckhohn (1948:32) point out that parents of young children "spend comparatively little time in verbal warnings, in imaginatively enlarging upon such [physical] dangers and their consequences" (1948:32). This practice, they note, promotes self-reliance and an ability to look after oneself. Of course, this pattern carries through to adulthood in the manner in which other skills and knowledge are absorbed and later retransmitted.

When asked how they learned to weave, many women said that they "just watched" their mother or some other weavers, then they "did the same things." When subsequently asked, "Did your mother teach you to weave?" many of the same people responded, "Yes, I watched my mother do it; she taught me."

We all weave in our younger days. Every Navajo girl in the years earlier started with weaving. The first thing we do is to herd sheep when we start walking. We just walk along with the mother when she goes out. Then we see our mothers doing the wool and she teaches us how. Then we card it and straighten it and spin it. Every girl in the years earlier started to weave.

In traditional households where weaving was commonplace, children were exposed to it from the time they were propped against a wall or tree in their cradleboards. It was natural to watch and gradually to begin understanding even complex actions.

Another specific form of the verb "to teach" is bee na'adinishtin--to teach it to oneself (Young and Morgan 1980:223).

Weavers, both experienced and just beginning, have commented that learning by yourself is the only way to really learn: "You have to do it yourself, all by yourself, or you won't know how to do it." Several weavers said they made their daughters weave alone, including the initial setting up of the loom, because "it is better for her, she will be a strong weaver."

Some weavers have an aversion to photographs being taken of their tools and techniques because they do not want their special methods copied. Their attitude can be appreciated if one understands the Navajo weavers' abilities to learn independently, from example. Showing another weaver a photograph or model loom is tantamount to teaching her. Similarly, this manner of learning explains the utility of small sample warps and loom models for teaching and remembering complex twill and two-faced pattern weaves (see discussion of these weaves in Chapter 6). To a Navajo weaver, then, a picture or model is worth many thousands of words.

Of course, crafts and other manual skills around the world are taught through demonstration and learned with extended practice. The Navajo way of learning from a competent demonstrator is little different from the manner in which many young people learn from their parents to sew or cook or drive a car. There is, nevertheless, greater emphasis on written instruction and step-by-step verbal instruction in bilagaana society than among traditional Navajos. It is common, for example, in a bilagaana knitting or weaving shop to see an experienced teacher with two or three students, all with their instruction and pattern booklets laid out

in front of them as they work. The teaching consists of conveying how to understand and interpret the written "recipes". While traditional Navajo ways contrast markedly with this, the situation is changing as more Navajo girls are school-educated and literacy rates increase on the reservation. A variety of books on Navajo-style weaving have been written for the bilagaana home-weaver (see review of the technological literature in Chapter 2). These now are being employed by Navajo women, too, as source material.

At the high school and college levels, the roles of student and teacher are more pronounced. That is, there is less Navajo-style learning by example and more specific direction, even when the teachers themselves are Navajo. Weaving classes are taught at a number of the reservation schools attended by Kinlichee girls. At one of the reservation colleges, the students' first assignment is to handcopy and learn by rote several essays on the origins of weaving and lists of weaving tools and instructions. This appears to be a combination of the Navajo learn by rote system used, for example, in the transmittal of complex ceremonial knowledge, and the introduced book-learning of the bilagaana. A high school student explained her preferences for the more formalized school system over the native method of conceptual learning by example. As a sophomore in high school she enrolled in a weaving class in which the students set up small weaving frames according to specific instructions from their Navajo teacher. Even though her mother is a proficient and quite creative weaver, the girl had never learned to weave at home. She said that her mother would only tell her to watch and try and

that she waited until the girl "did something" before correcting her. She notes that her weaving teacher at school, however, was "strict" and had "another way of teaching, step-by-step, and it's easier to do." Apparently this school girl, trained since kindergarten to follow explicit instructions, has adjusted to the bilagaana method of teaching and learning.

Opportunities for Learning

The majority of prospective weavers at Kinlichee begin by watching their mothers or other female relatives at the loom. The home is the principal place in which to learn, as it has been in the past (cf. Reichard 1934, 1936; Anderson 1951). There are, however, other options for Navajo women who want to weave. Some programs have been available since the 1930s and '40s when efforts at reviving weaving sparked the Fort Wingate high school weaving program. Others, such as the reservation-wide CETA-sponsored arts and craft programs and college classes, are more recent developments, influenced by the 1960s boom in the market for native American crafts. Current options for learning to weave on the reservation are described in the following sections.

Weaving at Home with Family Members.

While mothers have the predominant role as weaving teachers in most cases, grandmothers, sisters and aunts contribute to weaving education, as do some clan relatives, mothers-in-law, sisters-in-law and unrelated neighbors (see Table 5.1). Louise Lamphere (1977) has explored the cooperative ties between Navajos in a single community

TABLE 5.1
NUMBER OF WEAVERS TAUGHT BY SPECIFIC TEACHERS

Relationship of teacher to student	Number of primary students ^{a,b}	Number of secondary students ^c
Mother	55	3
Self	6	0
Grandmother	4	3
CETA Arts and Crafts Program	3	1
Mother-in-law	2	5
Husband's sister	1	1
Mother's brother's wife	1	0
Nearby chapter house Program	1	0
Unrelated expert weaver	1	3
School programs	0	3
Sister	0	1
Mother's sister	0	1
Father's sister	0	1
Cousin	0	1

^aSample (N = 74) represents 39.8 percent of the identified weaving population at Kinlichee.

^bPrimary students are those weavers who identified a single individual or institution as the most significant teacher when they began to weave.

^cSecondary students are those who received some training or influence from a specific teacher, but who already had learned to weave from someone else.

on the east-central reservation. Although she examined everyday activities such as hauling water and wood, herding and shearing sheep, plowing fields and arranging for special ceremonies rather than the learning/teaching of weaving per se, her cooperative networks are not surprising: "Principles of recruitment are as follows: primary kin are recruited before secondary kin; coresidents and kin who live in [the same community] are asked before nonlocal kin" (1977:178).

Naturally, people with appropriate skills are those most likely to teach weaving. But weaving remains enough of a common skill that most extended families possess at least a few members with sufficient knowledge and experience. The mother takes precedence over all others--57 weavers out of the 75 queried learned from their mother or from their mother in conjunction with some other person. Often grandmother and mother will form a supportive team to teach young girls. When a mother does not weave, sometimes the grandmother takes over entirely. Maternal aunts may be particularly influential, perhaps because of physical proximity in many cases. With older prospective weavers, in-laws may have a role in teaching, particularly if the couple has patrilocal residence. In the case of a woman from a non-weaving family who married into a family with many active weavers, her experience was described as being taught by "the Family," rather than by any particular individual. In a few cases at Kinlichee paternal relatives take on the task of teaching a girl; in each case, the mother was deceased before the girl began weaving.

The usual prelude to learning to weave is to help an experienced weaver and gradually, through direct exposure, to become familiar with each of the tasks involved. However, the sequence of tasks that a beginning weaver learns, their timing, and the relative amount of help received are individual matters, as the following discussion will demonstrate.

A number of Kinlichee women believe that weaving should be learned precisely in the sequence in which it is normally performed. This approach is used principally by conservative women who feel that in order to understand fully, one has to do it from beginning to end, solving problems and unsnarling snags as one goes along. This system involves the mother or other teacher primarily as model. As example-setter she allows the beginner to observe until enough is understood to try on her own. The teacher may have to unravel a mistake and reweave it for her pupil, demonstrating how the problem was solved, but she fully expects the girl to take care the next time. Typically, little verbal instruction or explanation is included in such lessons.

In contrast to this methodical manner of teaching (and in contrast to the manner in which other Navajo activities such as drypainting construction are taught), the weaving process may be "compartmentalized" so that distinct segments of the craft-- spinning, carding, or simple interlacement of yarns, for example-- are focused upon one at a time, and not necessarily in the order in which they are used by an experienced weaver. In this way novice weavers are not overwhelmed with the variety and complexity of

weaving tasks, and they are assured of relatively positive results on their first tries. So, for example, while one woman learned by herself, beginning with the carding of her own wool and progressing through an entire little project, she taught her two daughters in the 1960s by making them small warps from her yarn and weaving them partially herself. She then let the girls "finish them up--that's the way they learned to do it." Some mothers go even further, sitting by their young daughters and helping with each pass of weft, pulling the sheds and simply letting the girl insert the weft and pack it down.

The preparation of warp threads and the initial setting up of the loom (warping the loom) are two of the most crucial and painstaking activities. The quality of the warp yarn and the consistency of tension on the warp strings determine, in large part, the outcome of any rug. Thus, it is not surprising to find Navajo girls weaving their first rugs on warps that their mother or another tutor spun and strung. Finishing a rug with four complete selvages (one of the trademarks of a Navajo textile) is also a difficult and exacting task. For this reason, many teachers help their pupils finish the very last section of weaving.

Many beginning weavers today use commercially spun yarns for both warp and weft. Carding and spinning are no longer necessary preliminary steps for any weaver, particularly the novice. Some contemporary weavers are not so skilled as spinners. Because of commercial yarns, they may never need to learn. Conversely, a small number of women are unable to weave but are very good spinners.

This is certainly a consequence of personal preference and dexterity, but also from having learned "compartmentally," separating the various tasks of weaving into individual activities.

Profile of a Weaver and Her Family

When Caroline (a pseudonym) was 12 or 13, the second youngest of five sisters born into a family with many weavers, she wove a small rug. The rug was a complex twill weave made under the supervision of her mother. If she had woven others before this one, by the age of thirty she had forgotten them, remembering this as her first. Her mother and older sisters were always weaving, it seemed. That summer of 1961, a saddle-blanket sized warp was set up on her mother's loom and the girl was guided through each step of weaving--pull the correct heddle, insert the batten smoothly, pass the weft through the open shed, watch the selvage cords and twist them when appropriate, and beat the weft firmly into place. When finished, the rug was a nearly perfect replica of her mother's work, attesting to the constant attention Caroline received while she was weaving.

The following summer when school was out the entire extended family including several aunts and cousins once again moved their sheep herds to "the mountain". Caroline's mother set up two sets of stretched warps on her large loom, side by side. One was for Caroline who had already woven at least one rug, the other for her sister, three years older but just starting out. An older sister in her early twenties already had a fancy two-faced rug growing slowly on her loom across the room.

Caroline and her sisters worked away at their rugs most of the summer, whenever they had time away from the sheep herd and other household chores. Before the end of the summer, having had considerable help from their mother and much attention from visiting sisters, cousins, aunts, grandmothers and neighbors, each girl finished a rug. The sister's was saddle-blanket sized (30" x 30") with twill and two-faced blocks alternating. Caroline's (40" x 25") was a two-faced weave with stripes on one side and a large-scale stepped motif on the other. Both rugs contained the same thickly handspun wool, dyed with soft vegetal colors. These yarns were leftovers from several very large rugs that their mother had woven. Although heavy "saddle blanket weaves" like Caroline's two-faced and her sister's twill were not generally popular around the trading posts, the family had always made this style and one trader in particular had encouraged them. He intended to promote them as a special rug style and the family sold almost exclusively to him. Unlike most traders who did not pay for the extra time and thought involved in these complex weaves, this trader usually made some adequate compensation.

The trader believed in promoting "his" weavers' rug styles. In 1961 he entered in the Navajo Tribal Fair Caroline's supposed first rug. It won first prize in the juvenile category. In 1962 another of her rugs, a two-faced piece, won a second prize in the juvenile section of the Arizona State Fair in Phoenix. Each of these rugs carried a \$50 price tag; the weaver had probably been paid half or a little more of that sum, plus she received the prize

money from the fairs. In 1963 her mother took first place for a handsome two-faced/twill block design almost identical to Caroline's first rug, although twice the size. This rug sold for \$90. In 1964 Caroline's sister, placed first in the juvenile category at the Gallup Inter-Tribal Ceremonial and second at the Navajo Tribal Fair for a rug she had woven several years earlier--the 30" x 30" twill/two-faced block rug which originally sold for \$48.

Thirty years later, Caroline is married to a Navajo man with a professional career. They have three young daughters and a son, and she has had a series of professional jobs in a health-related field. She continues to weave, but only on weekends and holidays, producing one to three rugs per year. Her eldest daughter began to weave when she was 11 or 12; the next oldest is now clamoring to learn. The story of how her young daughters are learning to weave provides some contrasts and some similarities to her own learning experiences.

In 1979 at age 12 Caroline's oldest daughter was weaving on a small loom frame set up for her by her mother. It was perhaps her fourth small rug. The twill/two-faced block style is characteristic of her entire family's rugs, so that is what the young weaver is now learning to make. The loom that was built for her by her father sits in the bedroom that she shares with her sister and a niece, in a modern-style house in a tribal employees' housing development in Window Rock. The girl rarely weaves by herself, usually her mother is around to help choose the right heddle and to show which weft color is used next. To aid her, Caroline made the heddles on each

activities filled her time and she still had not started a rug. The first daughter, meanwhile, had woven yet another rug and sold it for \$90.

Caroline's mother, the girls' grandmother, was raised by Catholic missionaries. Thus, she speaks excellent English and, despite her traditional dress and sheep herding activities, she is not especially attuned to traditional Navajo beliefs nor religion. Although she taught her daughters to weave and has continued her weaving actively throughout her life, her Christian training replaced the native lore that often accompanies Navajo weaving. Only as an adult did Caroline learn of the Spider Woman origins of weaving, the many cautions and taboos surrounding the craft, and the traditional weaving songs. Because she worked for the Tribe in Window Rock and was involved in a program that stresses Navajo heritage and native beliefs as integral to personal well-being and health, she has come to appreciate weaving for its cultural qualities outside of bare economics. She began to tape-record various weaving songs for her daughters' sake, but that project was side-stepped by other job-related priorities. Nevertheless, even with their occupations clearly in the modern world, Caroline and her husband recognize the importance of the cultural heritage they wish to pass on to their children.

Self-taught Weavers

The theme of independence and self-reliance comes out in many stories of "how I learned to weave." At least four women reported that they were interested in learning to weave at an early

stick a different color and also changed the color midway across the warps. Often they weave together in the late afternoon when Caroline comes home from work and while dinner is cooking. She feels no need to push her daughter. When she wants to weave the loom is there; when she wants to play outdoors or do something else, that too is fine.

The daughter's very first attempts at weaving were disastrous. A frame for a small rug was set up the previous summer at her grandmother's sheep camp in the mountains. She wove several inches during those pleasant summer days, but then took the little loom outdoors and forgot about it. No one reminded her that she should return to her weaving. It rained and the small piece was ruined. The next rug that was set up for her--11" x 14"--was carefully finished with ample attention from mother, grandmothers and aunts. With simple stripes and a modified serrate motif in black and red, it is now proudly framed and hanging in her mother's house. The twill/two-faced rug described earlier was warped in August of 1979, finished in the spring of 1980 and sold shortly afterwards for \$75 plus a \$10 bonus for the weaver's young age. A second twill/two-faced rug was also sold that year for \$75. In midsummer, Caroline asked her daughter if she wanted another warp prepared for her and she replied, "No, it is too much work for me."

A second daughter, four years younger and just entering the fifth grade in 1980 could hardly wait for her own weaving project. Two broken arms from an accident, however, prevented her from weaving that year. By 1981 her boarding school life and other

age but that their mothers did not at first acknowledge nor aid them in their desire to weave. Each of these women said that they resorted to "stealing" bits of yarn and string from their mothers' work baskets and, while herding sheep or away from home on other errands, they secretly set up tiny looms and attempted to weave. As one says, "I had to do it all by myself, no help from anyone."

Upon discovery of the secret loom, one mother recognized her daughter's urges to learn weaving. She began the tutelage of her daughter, showing her the proper methods and supplying her with sufficient materials. The other mothers either ignored or refused to comply with their daughters' requests to weave. Several comments were made as to why these women were reluctant to teach their daughters. According to one woman, now an avid weaver, her older sisters had already married and left home and her younger siblings were all quite small when she acquired an interest in weaving. Her parents had other household chores intended for her, being the oldest child left at home. Weaving was viewed as a distraction by these parents, as it was by another set of parents who emphasized the importance of getting a good school education over the "backward" means of earning a living through shepherding and weaving. Moreover, there apparently existed some rivalry between the mother and this middle daughter, and also between that daughter and her two older sisters.

Interestingly, Reichard (1934:37-43) and Anderson (1951:10-12) both report incidents in which little girls steal away to secretly build a practice loom, and I have heard similar stories in

other areas of the reservation. Reichard tells the story of Marie who, at the age of six, was determined to weave. Rebuffed by her busy mother who preferred Marie to herd sheep, she stole small quantities of wool and yarn and constructed her own makeshift looms while herding. She made three simple little rugs before her mother discovered that she could weave. At the time Reichard knew her, Marie was a successful adult weaver. In addition to describing the self-motivated learning experiences of one of the Kinlichee weavers already noted in this study, Anderson includes a second story of a self-taught weaver, "one of many who got her wool and yarn" by pilfering from family supplies, and who gained skills in spite of the lack of guidance. Among the cases from other parts of the reservation is one concerning a young boy who began experimenting with rough sticks and scraps of yarn while herding sheep. Because his mother refused to teach him about weaving, he first taught himself and then sought out his grandmother's help. One of his several attempts, a striking loom frame au naturel with colorful woven tapestry, hangs now in his grandmother's house.

Seeking Expert Help

Beyond the network of kin, there exists at Kinlichee a number of women who are known for their expertise in weaving and who are sought out for help on individual projects. These women are usually paid for their efforts in sharing their skills and knowledge, much as a medicine man is remunerated for teaching an apprentice (cf. Mitchell 1978). Twill and two-faced weaves are not learned in all families and, being somewhat difficult to learn, they

are frequently taught by an unrelated but proficient weaver. One weaver paid another "one fat sheep and a lamb" in order to learn the method of weaving diamond twills. Others have struck similar bargains. Belt-weaving is another common technique that is taught outside of the kin system if a knowledgeable relative is unavailable. At Kinlichee several women each paid another weaver \$25 for instructions on how to make sash-belts; interestingly, this sum is close to the price of these belts in many trading posts. Adults are more likely to take advantage of an expert's tutorial services, but there are times when a good weaver is called upon to consult on a younger girl's weaving project.

How does one find an expert consultant? Kinlichee is small enough that people generally are able to identify at least some of the community's best weavers, regardless of familial relationships. In addition, at the chapter house a certain network of unrelated weavers has been formed through the CETA arts and crafts program (discussed more fully in a later part of this chapter). While no woman could be hired for a period longer than 180 days, and many projects had only 10-days duration, the program provided a certain amount of publicity for individuals' skills and allowed communication between weavers that does not normally exist when weavers are working at home.

Secondary School Programs

On a reservation-wide basis, weaving is taught at varied levels, from pre-school through college, and even in certain special education classes. At Kinlichee, weaving is not taught at either

the pre-school or the boarding school. However, the many girls who attend the public high school in Ganado or boarding schools in other parts of the reservation are sometimes able to take beginning and more advanced weaving classes. Weaving is not an integral part of the curriculum at the secondary level. Varying from year to year, it is a subject offered on the basis of teacher and student interest. It is sometimes taught in the schools' dormitories, as an extra-curricular activity.

Recent experiences with weaving classes at the secondary level are perhaps indicative of the general low status of weaving and other traditional crafts for the majority of young people on the reservation. The weaving classes at Chinle and Ganado High Schools exemplify some of the successes and failures of such programs.

Chinle Public High School is located at Chinle near the mouth of Canyon de Chelley, approximately fifty miles from Kinlichee. The school's present vocational director, Katie Powell, developed a weaving program that ran for three academic years, 1972 through 1975, within the home economics department. The program was federally funded through the Arizona Department of Education. Materials were supplied to students through the program and the students received the profits from their weaving. The two-semester weaving course became very popular, with fifteen to twenty students enrolled each semester, although it was not part of the required curriculum.

Despite its popularity, staffing was a problem. Although several Navajo aides, all apparently elderly, were hired in succes-

sion, the students "did not appreciate the grandmothers' ways" and were not able to learn solely from examples set by the experienced weaving women. Their Anglo teacher, Powell, and the students "just tried by ourselves," using Noel Bennett's book Working With the Wool and a lot of experimentation.

According to Powell, the class was a success. The school sponsored a traveling weaving exhibit, which involved students and portable looms, and demonstrations across the state of Arizona. a number of dropouts, ages ranging from 21 to 24, returned to school in order to take the weaving class. The high school undertook a follow-up study of its weaving students in the late 1970s and found that approximately half were still weaving several years after they finished the course. Several were depending upon weaving for regular income; others were weaving more sporadically. One former student who had been older than the average high school person wove a very large rug each summer in order to send her son to school in the fall.

In 1975 regulations concerning the weaving program changed. The administration prohibited a bilagaana from teaching Navajo-style weaving and required that it be taught by Navajo women. Unfortunately the Navajo women who were hired apparently preferred weaving to teaching and, according to Powell, literally locked students out of the classroom while working on their own projects. Spring 1976 was the final semester of the program.

Until 1981 weaving had not been taught for at least 15 years at Ganado High Public High School. During the winter of 1981, a

traditional weaving unit was incorporated into the girls' home economics program at the initiative of Juddie Batchellor, the bilagaana home economics teacher of 14 years. Sixteen girls between the ages of 10 and 12 were registered for the course. They visited expert weavers on field trips, had weavers visit the class, and learned to set up and weave on small frames with commercial yarns. As might be expected, a wide range of products resulted, some excellent for first tries and some fairly ragged. According to the teacher,

It is hard to get kids of today to weave. They want to do more "modern" things. They are afraid of being made fun of. (Batchellor, personal communication, September 1982).

Out of 16 students, only one girl showed promising skill and serious interest. After studying traditional costume as part of the course, this particular girl wove a biil (dress) in addition to the class' regular rug project. She had had some exposure to weaving prior to the class, as her mother, grandmother and aunts are all weavers. The entire family is proud of their weaving and comfortable with their semi-traditional lifestyle. This, apparently, has influenced the girl's approach to weaving (Batchellor, personal communication, September 1982).

In 1982-83 weaving was dropped from the mandatory program in home economics and was included only as an option. Essentially, it was replaced by Career Awareness, a class deemed far more relevant to students' current needs by the school's teachers and administrators. "A sign of the times," says the former weaving teacher.

Despite the apparent lack of success in school programs discussed above, a few unique schools have had moderate amounts of

success in their weaving classes. Perhaps their success is due to the different approach that the community-controlled BIA contract schools are able to use (cf. Roessel 1979). The Pine Hill School, an experimental school established in 1970 at Ramah, not only has enthusiastic weaving students but a small periodic publication modeled after Foxfire, called Tsa'aszi' (The Yucca), in which traditional crafts are explained in articles written by the students. Similarly, Rough Rock Demonstration School, in operation since 1966, has approached weaving as an important cultural entity, reviving it for its import to Navajo heritage and pride rather than solely for its economic potential (cf. Roessel 1977).

College-level Weaving Classes

Three institutions offer two-year college programs on the reservation: Navajo Community College (NCC) at Tsaile, operated by the tribe since 1968; Northland Pioneer College (NPC) based in Holbrook but with nine branches on the reservation; and the College of Ganado (TCOG), a private school established in 1966 by the Presbyterian church. Each school offers weaving courses from time to time, usually in the form of evening classes in the interest of women who are not full-time students and who have day-time jobs.

Mabel Burnside Myers, noted weaver of vegetal dyed rugs from Pine Springs, began the weaving program at NCC sometime in the 1960s. Today, weaving instruction continues as part of the Navajo and Indian Studies (NIS) program. The General Catalog 1980-1981 describes the two-semester sequence:

NIS 105 Navajo Weaving I (3 credits). Series of lectures on the origins, purposes, philosophy and legendary development of weaving in Navajo perspective. Includes rug-weaving projects; straight weaving in traditional methods, techniques and design.

NIS 016 Navajo Weaving II (3 credits). Development of individual creativity, technique and skill in weaving geometrical, pictorial and double woven rugs. A minor emphasis on comparative studies of various ancient and contemporary weaving (Navajo Community College 1980:113).

During 1981-82 Navajo weaving and traditional pottery-making were taught on the same nights in the same room, appropriately in the Ned Hatathli Cultural Center which houses the college's museum. One Navajo teacher had taught weaving for thirteen years; the other for ten (Begay and Yellowhair, personal communication, February 1982). They teach weaving

. . . from the beginning--carding, spinning, and then the weaving. But after you learn, then you can buy your yarns to use.

Although twelve students initially enrolled, only eight continued after the first class. One student was male, in his early 20s, and asked to be excused from class sessions so that he could weave on his own time; the teachers agreed to accept him as a student as long as he brought his own wool or yarn, although raw wool, roving and yarn were provided for the other students. Thus, seven women, all Navajo except for one Japanese exchange student, attended the class during that particular quarter. Ages ranged from about 19 to late 30s, averaging in the late 20s or early 30s. Several women brought their young daughters with them so that they could learn too.

Northland Pioneer College has offered weaving classes at its satellite campuses at Chinle, Many Farms, Ganado, Kayenta and Shonto. Only Chinle and Many Farms programs will be discussed here,

because of their proximity to the Kinlichee area. At the Many Farms branch during fall 1981, fifteen women (nine Navajo and six bilagaana) registered for weaving. In the spring of 1982, twelve women had signed up (seven Navajo and five bilagaana). Their ages ranged from teenagers to 50 years old, with a concentration between 20 and 40 according to the area manager (McCarty, personal communication, January 1982). The teacher, a Navajo woman in her 50s, taught weaving at Many Farms High School as well as for NPC.

Weaving was taught at NPC's Chinle campus during 1981 as well as 1982. The teacher, who learned from her grandmother, was in her late 20s' quite young to be the excellent weaver and teacher of her reputation. In the winter of 1982 twelve people were signed up for each of the two sessions in beginning and advanced weaving. The Chinle representative for NPC estimated that 75 to 90 percent of the students are generally bilagaana, with an overall age range similar to that at Many Farms (Cleveland, personal communication, January 1982).

The College of Ganado has occasionally offered weaving classes, but on no regular basis. Weaving is included in a course entitled "Special Topics in Art."

It is difficult to determine the long-term effects of such college-level programs without prolonged study. Several girls from a prominent Kinlichee weaving family took the NCC class but neither had time to pursue weaving after the class ended because of their coursework and job activities. For the women beyond normal college age who enrolled in classes, the primary motivation seemed to be

that they felt weaving was something they had "missed out on" when they were younger; each wanted their daughters to know how to weave and was drawn to weaving as a symbol of continuity in the midst of their changing lives. None of the proficient weavers at Kinlichee reported that college had been one of their sources for learning.

Chapter-Sponsored Projects

There are two kinds of work programs held at the Kinlichee chapter house that have directly affected weavers: the Community Works Projects and the CETA-sponsored workshops.

The Community Works Program (CWP) uses tribal funds to hire people for ten-day work periods. In contrast to construction, road and building maintenance, cutting and hauling firewood and other similar male-oriented jobs, rug weaving is the major female counterpart for ten-day projects. One ten-day project in 1981 consisted of five women ranging in age from 40 to 51 who carded, spun and dyed large amounts of raw wool. The following ten-day project with seven women ranging from 47 to 57 years old accomplished the weaving of that wool into six rugs. These rugs, averaging 2-1/2 by 4 feet, were sold for approximately \$200 each to benefit the chapter house's coffers.

Prior to 1981, women were also hired under the chapter house's arts and crafts program, funded by the federal Comprehensive Employment Training Act (CETA). At least five women were hired in 1979; eleven in 1980; and, just prior to the withdrawal of CETA funds, only four were employed in 1981. They were paid a minimum wage (\$3.35 - \$3.55) for a maximum period of 180 days. A foreman

was assigned to manage the program during each six-month period. Several experienced (and generally older) weavers were chosen for their expertise in crafts. They set up looms for those ready to learn and worked on projects of their own. Other crafts practiced at Kinlichee during 1979-1981 included crocheting, knitting, moccasin-making, yarn basketry, yarn "ojo"-making. No pottery was made although on the western reservation this is a common CETA-sponsored craft. Rugs and other products were sold, again to benefit the chapter as a whole, at the annual CETA Fair at Window Rock where each chapter in the Fort Defiance Agency had a display booth.

Additionally, during summers the Neighborhood Youth Corps (NYC) operated by the Office of Navajo Economic Opportunity (ONEO) hired teenagers to undertake various projects at the chapter house. Among these projects were arts and crafts. At Kinlichee, it generally fell to the adult CETA employees to instruct NYC participants. Only on rare occasions did a teenager try weaving a rug; belt-weaving was somewhat more common, but most of the girls spent their time quilting and crocheting.

Work programs such as these are organized to distribute funds as widely as possible in the chapter. At Kinlichee, at least six women (plus as many men) benefitted annually from the six-month CETA programs; two or three times as many were helped by the CWP ten-day projects. Beyond the minimum wages received, it is debatable whether many women actually gained competitive and marketable skills from the arts and crafts programs. In some cases in which a superior weaver left her large looms at home to demonstrate and set

up a series of small looms for women with little intention of continuing when the project period ended, it seems almost a waste of her time. Yet women were eager to participate, not only for the wages but for the social atmosphere that the chapter house provided.

Regardless of the programs' local success or failure, by mid-1981 federal cutbacks curtailed most of the CETA programs on the reservation, including the one at Kinlichee; only the ten-day work projects continue at present. The Tribe's official stance towards such arts and crafts programs is not clear, but perhaps even the vagueness surrounding these programs is indicative of ambivalent tribal opinion. Despite the fact that CETA weaving programs were common in chapter houses across the reservation prior to 1981, there is no mention of such programs in any of the Navajo Nation Overall Economic Development Programs (OEDP), which are progress reports published annually since 1962 by the Tribe's Division of Economic Development. In the 1979 OEDP section on manpower development, training and education for 6018 people in diverse fields other than arts and crafts are listed but no mention of chapter crafts programs is made (Navajo Tribe 1979:15). Moreover, these popular crafts programs are not mentioned in the official proposals and reviews of the overall CETA programs on the reservation that are submitted to the CETA Office of Indian and Native American Programs by the Navajo Tribal Chairman, Peter McDonald (Library for the Navajo Office of Economic Development in Window Rock). According to a reliable source in tribal administration, the arts and crafts programs are an embarrassment to tribal officials, but attempts to eradicate the

programs have been thwarted by their popularity at the local level. Despite the lack of official recognition weavers continue to ply their craft and so we next turn to the actual acquisition of weaving skills.

Beginning to Weave

Reichard (1934:37-38) describes the experiences of Atlnaba, a child prodigy of the early twentieth century who, at the age of four, began weaving and, by the time she was nine, was an accomplished weaver selling her small rugs at Hubbell Trading Post. Marie, another of Reichard's Navajo friends, learned to weave on her own at the age of six. Despite these early ages and although I am aware of others in other parts of the reservation today, no similar stories were related at Kinlichee. It may very well be that a number of Kinlichee weavers learned at a young age, but they were unfortunately not queried on this matter. It is, however, evident from the Kinlichee data that although the learning of weaving is not restricted to any specific age group today nor in the past, the average age for beginners may be increasing with time.

Most of the weavers interviewed in the Kinlichee area began to weave between the ages of 10 and 18. Table 5.2 shows the range and proportion of reported beginners' ages. The oldest woman consulted was born in 1901; the youngest included in the sample was born in 1970. Generally the age at which a girl weaves her first complete rug is the reference point for "beginning age." However,

Table 5.2
 BEGINNERS' AGES AND THE YEAR IN WHICH WEAVING WAS BEGUN

	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
DATE OF				1920	1942	1947	1959	1942	1943	1944	1936																			
FIRST WEAVING:	1942	1980	1970	1978	1975	1972	1981	1980	1947	1979	1977	1975	1940	1974																
BEGINNING AGE:																														
(in years)																														

Source: Hedlund, field notes, Kinilchee, Arizona 1979-1982

N = 26, Mean = 17.3 years, Median = 15.5 years

differing interpretations for this, ranging from the first carding of wool to the first actual warping of the loom, were unavoidable.

From the 1920s through the 1950s it appears that girls under the age of twenty were predominantly those who learned to weave. In the period after 1960, however, a wider range of women, including a number in their 20s, 30s and 40s began to weave for the first time. Over one-third of the Kinlichee weavers (15 out of 36 in the sample) were 18 or older when they first learned to make rugs. Seven of these women, all born between 1952 and 1958, learned to weave in their twenties. Two were born in the 1940s and were over 30 when they began. Three were 18 or 19 in the late 1970s when they learned.

Thus, the 1970s and early 1980s appear to be a very active time for beginning weavers. There are two possible explanations for this apparent trend. First, it may represent revived interest in weaving by certain women, particularly those over 20. During the 1960s the market for rugs was promising and may have convinced a number of women that weaving was an economically viable alternative to working outside the home. Also, with the high unemployment rate and economic problems of the 1970s, weaving may have been viewed as better than no job at all. Alternatively, the trend may only be apparent--it is possible that it represents only the cyclical nature of the educational process and, more specifically, the delayed attrition that is part of that cycle. More women may learn to weave in any given year than those who choose to continue beyond the initial few years. And so, it would appear to an observer who

examined only current weavers that a greater number were learning in recent times than at any time in the past, despite the fact that since mid-century the total number of weavers has been steadily declining. Until a large number of non-weavers are studied to ascertain how many learned but discontinued the craft, it is not possible to determine how such trends should be interpreted.

It remains that there are older women who are learning to weave and who have gone unmentioned in the previous literature. The following case studies illustrate some of the current issues that affect young women (as opposed to young girls) who learn to weave today.

Profiles of Weaving Latecomers

Wanda (a pseudonym) is the 25 year old daughter of an expert weaver. She and her husband and their two young sons live in one of three houses in her parent's camp. Wanda never learned to weave as a young girl because she spent most of her time away at boarding school in Utah. During the summers she helped her mother, the only other weaver in this camp, with spinning and carding but she never wove her own rug. When she graduated from high school, she was hired at a Public Health Service hospital on the reservation, but was soon laid off. Finding no other job, she began to weave at the age of 22 or 23 under the supervision of her mother.

From the beginning, Wanda's mother had her make her own warps and set up the entire loom by herself. They both believe that it is the only way to learn well and that it is the reason that Wanda became such a strong weaver within a relatively short time.

According to Wanda, her second rug sold for \$500 to a rug dealer. Although one of her cousins, also in her twenties when she first learned to weave, was permitted to use commercial yarns to speed the learning process, Wanda never resorted to such time-savers. She preferred to follow her mother's tradition of handspun warp and weft, so that she could control better the weight and quality of her rugs and, thereby, earn more for each rug.

In 1981 Wanda was making a special traditional dress (biil) for her sister to wear in a Navajo ceremony. She had a deadline and in order to finish she wove through the night, with the single electric bulb hanging from the ceiling for light (this is one of the few camps at Kinlichee that has electricity). In the morning she discovered that in the dim light she had used a slightly different shade of red in the border and was faced with either an imperfect dress or the day-long job of unraveling the entire border and re-weaving it. She chose the time-consuming re-weaving.

Wanda's mother receives large rug commissions from time to time. She is an excellent weaver and has the capabilities of earning as much as \$7000 for a single large rug, taking perhaps four months to finish. She works with her mother on some of these large projects and it is this direct experience that seems to teach her the most. They may weave together side by side, or may take turns working one at a time. Working side by side is common not only in the teacher/pupil relationship but also when two weavers of more equal skills work together. Wanda's mother and an aunt or other older lady often weave together in order to finish a project more

quickly. The helping weaver is usually paid a small portion of the total rug price. Wanda often helps negotiate the price for her mother's rugs since she speaks better English.

It has been mentioned before that finishing the very last part of any rug is a most difficult stage. Whereas Wanda's mother used to have to help finish her early rugs, now she lets her finish the last few inches of her own fine rugs. This gives Wanda further practice and also saves her aging mother's strength and eyesight.

In January of 1981 Wanda was weaving her second very large rug, five feet by eight feet. She would probably earn about \$1500 from it. Because she has the potential to be a superior weaver like her mother, it is doubtful that she will find a job that would pay as well as her weaving. Yet she says that if she could find wage-paying work, she would take it and leave the weaving behind. Weaving is hard work; you have to concentrate and you're always thinking about it, according to Wanda. Also, she is confined to the house when weaving and feels isolated from the "exciting modern world."

Betty (a pseudonym) was born in 1947 and went to local schools up to the ninth grade. Unlike Wanda, she didn't finish high school. By 1970 she had two daughters and one son, and had never taken a job outside her home. Her house is part of a large camp that includes the hogans of her mother, grandmother, two aunts, sisters and several others, all of whom weave. In 1979 Betty decided to weave. Within the next six months she made approximately six small rugs. Like her mother and other relatives, she purchased

processed wool in Gallup that she splits and spins herself. Each rug that she makes, usually without side-twining and about 18 inches by 30 inches, brings about \$100 from the same trader. Her designs are fairly similar from one rug to the next. Without striving for grand-scale weaving such as Wanda and her mother practice, Betty says that weaving pleases her, that she enjoys doing it. While her earnings are important, Betty appears to have an appreciation of the tradition that weaving represents. From one of her "old grand-mothers" she inherited an old diamond twill saddle blanket which she obviously cherishes despite its worn condition. She plans to continue weaving because it allows her time with her children, with the rest of her family and, perhaps most importantly, with herself.

Marie (a pseudonym) was 24 in 1981 and wove her first small rug, about 15 inches by 25 inches, in three weeks of that year. Although her grandmother wove and her mother still weaves, she never learned to weave while she was going to school. It is her older sister that began teaching her how to set up her loom and make a rug now that she is out of work. In contrast to the traditional gathered calico skirts and old-style shirts of her mother and sister, Marie wears polyester pants outfits, stylish oversized eye-glasses and curled hair. The small rug that she has woven is of commercial 4-ply yarns, acrylics in a brilliant array of colors--turquoise, yellow, fuschia, red, forest green and white. The design is a simple banded arrangement of arrow-like motifs. She plans to keep it as a memento of her learning experience. She also hopes to weave another rug someday, although by the winter of 1982 she had

moved with her three children to a nearby "growth center" and found wage-work. It is possible that the first rug will also be Marie's last.

Summary

The traditional Navajo manner of learning to weave is characterized by watching others and by learning through one's own mistakes. The system of learning by observation and experimentation is demonstrated linguistically as well as behaviorally, and many weavers today employ this method in their informal teaching within the family. Women in an extended family are the most likely sources of teachers, and the mother-daughter relationship is perhaps the strongest link.

A variety of weaving resources have developed on the reservation. Some are a continuation of earlier trends, and some have been initiated at least since Reichard's reports in the 1930s. Secondary schools have sponsored weaving courses with variable success. Young people's needs for career development and vocational skills classes has, in at least some cases, overshadowed a desire to learn a traditional craft with decreasing economic viability. College classes at Navajo Community College and Northland Pioneer College, as well as the weaving at the community-contract schools at Ramah and Rough Rock, appear to cater to a few women who want to learn the craft not primarily for economic purposes but because it is a link to their cultural heritage. Before recent government cutbacks, the Tribe sponsored community weaving projects through the

Office of Navajo Economic Development and through the Comprehensive Employment Training Act. These projects, while inherently economic in organization, appear to have important overtones for social interaction and community identity.

The actual number of women and girls who are learning to weave is unknown but, judging from genealogical data, there appears to have been a considerable decrease in the past several decades. Still, cases of both young girls and women in their 20s and 30s have been documented at Kinlichee. A sample group of weavers indicates that perhaps beginning weavers' ages are increasing slightly through recent time. Younger girls are often too occupied with school to participate in weaving. Some young women, however, have found themselves without jobs and have turned to weaving as a means of retaining a certain amount of economic self-sufficiency. Others are establishing either a family or career and want to know about weaving as part of their cultural background, perhaps also as a leisure time activity.

There is considerable variation in beginners' success with the craft. Some who begin the learning process do not continue to weave throughout their lives. Weaving is not an easy task; it takes concentration, patience and practice. To examine specifically what is entailed in this craft, we turn to a discussion of the tools, techniques and processes involved in making a rug.

CHAPTER 6

TOOLS, MATERIALS AND TECHNIQUES IN CONTEMPORARY USAGE

Broadly speaking, the tool kit and technology of the Navajo weaver have changed little through time in terms of the number and type of artifacts required, their relative sizes and shapes, and their functions. The basic requisites for weaving are the same the world over and, to begin with, the Navajo inherited an already efficient system from their Pueblo neighbors (Wheat 1981:3). A basic frame, a means of tensioning the warps, a shed-creating device, and tools for inserting and packing down the weft threads: these are the necessary tools of the weaver. A nineteenth century craftswoman should, by and large, recognize most of the tools and techniques of a weaver of the 1970s.

Changes have occurred, but in more subtle and less surprising ways. The raw materials and their sources, the personnel involved in making the tools, and the use of a few modern technological devices for creating the finer details in weaving have been affected through time. In many respects, these changes have little apparent effect on the final woven product. Navajo rugs are still handwoven, with certain unmistakably Navajo traits such as a weft-faced weave with four complete twined selvages and tapestry or twill weave patterning.

The impact of change is realized more in the processes of weaving than in its products. Most of the deviations from traditional materials, tools and techniques are time and labor-saving efforts, just as modern technology in the off-reservation world strives for more efficient means of accomplishing tasks. Because a craftsman is rarely, if ever, paid for the total time and energy expended in production, this economizing is an important feature for the survival of the craft today.

A factor in the subtlety of changes occurring in weaving technology today is the continuity of change itself among the Navajo. The People have proven adept at adapting new materials and ideas to their own purposes since their first contacts with the bilagaana (Vogt 1961). Change appears slow but constant. The efficient new yarns and tools of the 1970s are not a departure from tradition; they are, indeed, a continuation of the Navajo system of incorporative adjustment.

A weaver can improvise and extend the use of simple tools to highly complicated production. It has been argued that the simplest tool kit such as that possessed by the precolumbian Peruvian weavers still allows for maximum elaboration of the craft (Bird, personal communication, April 1974). In other words, it is not necessary to have elaborate equipment in order to produce textiles with a high degree of complexity. Moreover, fancy equipment can sometimes hinder or constrain the results rather than aid them. The Navajo system, while certainly not rivaling the precolumbian one in its elaboration, is a good example of the use of a very simple tool kit

that allows for flexible products--from fine wearing blankets of the nineteenth century to heavy floor rugs of the twentieth, from tapestry designs limited only by the weaver's imagination to intricate patterns controlled by the loom.

It is the three factors mentioned above--an already flexible technology, the background of incorporative culture change, and a striving for efficiency, that mark contemporary Navajo weaving. The following sections of this chapter will discuss specific materials, tools and techniques used by Navajo weavers, organized in the same order as they are approached when a textile is woven. Comparative material from the nineteenth and early twentieth centuries is introduced to clarify both the continuity and the contrasts between past and present weaving systems.

Fibers and Yarns--the Raw Materials

Navajo Sheep and their Wool

A Navajo Indian standing in majestic Monument Valley or in Canyon de Chelly with a flock of sheep is one of the stereotyped images of the People fostered by writers, photographers, publishers, and even by the Navajo Tribe itself, promoting tourism and the picturesque qualities of Navajo country. There are a variety of reasons that this image represents a valid "trademark" for the Navajo.

Sheep dominate the livestock economics of . . . the Navajo reservation as a whole. The social and cultural life of a family owning even four or five sheep is largely determined by this ownership. In part this is owing to cultural patterns built around sheep keeping as a way of life and supporting the patterns of sheep keeping as the "right" way to live. Also, the possession of even a few sheep requires certain activities that are only intensified if the number of sheep is increased. Sheep keeping also requires herding and tending every day, so that the activities of man are dominated by the needs of the herd. (Downs 1972:57).

The size of a flock is a traditional measure of the owner's material wealth. Special songs were sung to protect the sheep and to promote their increase (Kluckhohn and Leighton 1974:69). Sheep and other animals are also mentioned in many of the blessing and curative songs. Children are traditionally given lambs and sheep as presents. As they grow older, if possible, they should accumulate a flock for themselves, even if it is herded and cared for with the family flock (as often happens when children go to boarding school and when adults move away from their home region).

Mutton is still a favorite food in most Navajo families, and is sorely missed by children at boarding schools and by adults who leave the reservation for even a brief trip. While the Window Rock FedMart and other grocery stores sell mutton, a number of Kinlichee people comment that "it's not the same unless you butcher it yourself." Some local people with large herds are willing to sell a sheep for slaughter to neighbors or good friends. Occasionally Kinlichee residents have traveled as far as the Farmington area to purchase a sheep, reporting that "they are fatter and better up there where it is greener; they are cheaper too." Prices paid in 1980-1981 for a sheep ranged from about \$35 to \$60.

The wool from the sheep, of course, is prized as both an economic item and as the traditional raw material for weaving. An average fleece weighed seven pounds in 1980, amounting to approximately 2.5 pounds of clean wool when scoured (Navajo Times, 6 November 1980). A product of improved breeding, this represents a one-pound increase over the average weight reported by Kluckhohn and Leighton in the 1940s (1946:69), and an even more considerable increase from previous times. Despite such increases there are signs that sheepherding itself is losing ground on the reservation as families move away from traditional pursuits to wage-paying jobs.

Historical background. Sheep were introduced to the Southwest by the Spaniards, first for their meat and secondly for their wool. Wheat (n.d.: Part III, 6) notes that the sheep brought to the New World by Coronado in 1540 were likely consumed rather than kept for their fleeces. The earliest "wool sheep" brought to the area came in 1598 with Onate's expedition to the Rio Grande Valley. These early sheep were of the churro breed, a hardy Andalusian stock with long, smooth and relatively greaseless wool, the perfect fiber for handspinning in an arid land. The churro's fleece has quite a sheen and colors range from creamy white or golden to dark brown-black. The Navajo were quick to recognize this animal as valuable. Records of their acquisition of sheep from the Rio Grande Valley date as early as 1640 (Wheat n.d.; Hackett 1937). By 1706 many sheep and goats were in Navajo possession (Hill 1940). Between 1846 and 1850 alone, Valkenburgh estimates that more than 450,000 Spanish sheep

were commandeered by the Navajos and Apaches (Vogt 1961:296; Van Valkenburgh 1938:11).

Merino sheep, with fleece qualities in direct contrast to those of the churro, were first brought into the Southwest in 1859 by George Giddings of Kentucky (Wentworth 1948:237; Wheat n.d.: Part III, 9f). Merino wool is very fine, has a short staple (length), and contains much grease, lanolin and yolk. It is preferred for fine commercial processing but is extremely difficult to work by hand because of the tight crimp (curl) and heavy grease content. Although introduced with the intent of upgrading the coarser churro wool, as well as providing a better source of mutton, merino sheep had a negative effect on the handweaving industries of New Mexico and Arizona. Yarns spun with Merino wool are nubby and uneven, and often not thoroughly cleaned. Nevertheless, by 1880 it is estimated that 38 percent of the sheep in New Mexico were Merinos and the rest were "native" breeds (Wentworth 1948:238; Wheat n.d.: Part III, 9f).

Improvement programs. During the Navajo encampment at Bosque Redondo, Navajo flocks were virtually decimated and then built up through government annuities. Between 1868 and 1878 thousands of churro sheep, more than likely with some Merino blood, were transferred to the Navajo from the Rio Grande Valley (Wheat n.d.: Part III, 9g-9h).

In the 1880s a series of "improvements" by Navajo Indian agents was attempted through the introduction of Merino rams into Navajo flocks, until the difficulties of handprocessing the wool were finally discovered (Wentworth 1948:547; Wheat n.d.: Part III,

91). After 1900 various other attempts were made at improvement, with little avail (Blunn 1940:104; Wheat n.d.: Part III, 91-92; Wentworth 1948:548). The quality and quantity of Navajo sheep's wool remained low and is easily identified in rugs woven at that time.

The 1930s brought two government programs to the reservation, both with efforts at range rehabilitation and livestock improvement. Because of severe overgrazing on the reservation, a livestock reduction program was instituted in 1933 under the direction of John Collier, Commissioner of Indian Affairs. Much to the disgust and horror of Navajo livestock owners, the Tribal Council agreed to a plan in which the U.S. government purchased and then slaughtered hundreds of thousands of animals, many of which were left to rot in arroyos. The effect of livestock reduction was the disenfranchisement of many Navajos even further from the government while only slightly reducing overgrazing and improving erosion control.

In partial response to livestock reduction, a second program was initiated at Fort Wingate, New Mexico, to ensure that the reduced flocks had the highest yield per animal that was possible. In 1935 the Southwestern Range and Sheep Breeding Laboratory, a cooperative research agency established by the U.S. Departments of Interior and Agriculture, represented the first significant step towards upgrading Navajo wool for reservation conditions and hand-processing standards (Grandstaff 1942:6). Through the careful and scientific examination of old Navajo blankets and rugs and experi-

mental testing with a specially selected flock of Navajo sheep, the characteristics of an ideal fleece for Navajo weavers were ascertained. Results from Fort Wingate's subsequent sheep breeding program can still be seen in flocks on the reservation today, but unfortunately the project was terminated in 1967.

Improvement projects continue to this day. In 1976 the Ram and Billy Import Program was established, sponsored cooperatively by Navajo Community College - Shiprock Campus Agriculture Program, and New Mexico State University Extension Service, (Wolf, personal communication, July 1980). Under this program, quality rams are brought to the reservation from a ranch in Artesia, New Mexico, and offered to Navajo herders for sale at cost plus transportation (Navajo Times, 6 November 1980). Ewes from the mother flock produce a fleece weighing about 10 pounds, resulting in about 5 pounds of clean wool; rams' fleeces generally weigh about 13 pounds, 7.5 pounds after cleaning. Both represent a considerable increase over the average reservation fleece at present.

While the Ram and Billy Program advertises in the Navajo Times, a reservation-wide publication, customers for the rams generally come from the Shiprock and Tsaile areas, with a few from as far south as Crownpoint. Apparently, New Mexico sheep owners tend to attempt more upgrading of their flocks than those in Arizona (Wolf, personal communication, July 1980). To my knowledge no one in the Kinlichee area is yet aware of the program.

Another improvement program is underway at Utah State University of Logan. There, the motto is "Save the Churro!" and an

effort is being made to establish and maintain a breeding flock of the "old-style" Navajo sheep in order to supply the best quality wool to Navajo handspinners. In 1977 a nucleus flock was started at California Polytechnic State University in San Luis Obispo, California. Two years later the program was transferred to Utah. Between 1979 and 1982 additional sheep were selected from various reservation sources and culls were taken from the original flock. The flock includes churro and Two Grey Hills-type sheep. In 1981 major fundraising efforts were made in order to continue the project, with the goal by 1986-87 of a stabilized nucleus flock of about 120 to 130 sheep whose wool would be sold directly to Navajo weavers (McNeal, personal communication, August 1982).

The decline of herding. Despite the ideal image of the Navajo and their sheep--the identification of sheep with the land and with the good life, the livestock economy is declining and fewer Navajos have flocks each year. In 1957 less than half of the Navajo families on the reservation owned livestock of any kind (Kluckhohn and Leighton 1974:54). Furthermore, a disproportionately small number of families owned most of the livestock at that time. In 1974 the Overall Economic Development Program for the Navajo Nation reported:

Herding of small flocks of sheep and dry farming remain the livelihood of over one-third of all Navajo families, despite the minimum subsistence these activities provide. Much of the livestock now represents a supplement to other income (1974:28).

For Copper Canyon, a community on the eastern reservation, Lamphere notes a 44 percent decrease in the overall number of sheep owned

(3972 to 2228) and 50 percent in the number of sheep per herd (from 100 to 50) between 1938 and 1966. She remarks that "more families in the 1970s own no livestock at all" (1977:24).

While no comparable statistics are available for the Kinlichee area, it is evident from residents' remarks and behavior patterns that the same phenomenon is occurring there. Weavers explain their use of commercial materials because there were no sheep to shear. Families that once made annual trips to summer camp with their flocks no longer go, or make short forays with their much reduced herd. In 1981 a number of individuals were unaware that sheep dipping, a formerly big community event, was occurring because it no longer held importance for them and their disappearing livestock. A minority of families own large herds of sheep. Other families retain relatively small flocks, often comprised of sheep and goats owned by various members of an extended family. They can often be seen grazing unattended around the camp in the cooler seasons. In the summer they are taken "to the mountain" for the entire season, or they may be herded periodically into the local canyon system for water and a cooler climate. One family with a reasonably large herd of sheep moves to their summer camp each year because they enjoy the peaceful, cool country. But because they also like the freedom of moving back and forth between their homes at least once a week, they hired a Mexican man to watch the herd in 1981. The year before, this same family had a distant male relative tending the flocks for meals and small wages, during the summer.

The number of sheep owned by any individual on the reservation is governed by a grazing permit (dibe binaltsoos, the sheep's papers). The district's Grazing Committee rules in any permit disputes or discrepancies and is, thus, one of the more powerful groups in the community.

An annual sheep dip is held at Kinlichee in mid-summer, organized by the Grazing Committee and chapter officials. It takes place in a centrally located area with several permanent corrals and drying pens, a dipping trough, tank and water pump. Sheep are dunked in a chemical preparation that kills tick, lice and other vermin. Sheep owners pay for the dipping by the animal (40 cents per head in 1981). Although few people camped at the site during the three days of dipping in 1981, sheep dip carries on the Navajo tradition of gathering to visit and gossip with friends and distant relatives, to compare herds, and to slaughter a few choice animals and feast on roasted mutton.

As mentioned earlier, some members of the Kinlichee Chapter without sheep of their own had no need for dipping and were oblivious to the community gathering. At least one family in the area chooses to spray their animals themselves, foregoing the sheep dip for another reason. This family believes that with their small herd (approximately 25 sheep and goats and 12 head of cattle) it is more efficient to do it themselves than to truck or herd them to the dipping location. They can easily buy the commercial spray at any Gallup feed store.

Breeds. A wide variety of sheep and goat types can be seen around the Kinlichee area white, brown, black, spotted and speckled; two, four and no horned; mixed breeds with traces of churro, Merino, Rambouillet, Suffolk and black-faced, Corriedale, Romney, and many more with unclear blood-lines. White sheep of mixed, rather indistinct (or unrecognizable) origins are by far the most common.

Kinlichee flocks resemble reservation-wide flocks in their composition. Approximately 70 percent of the wool produced on the reservation is a fine-textured grade, often difficult to handle by handspinners. Of the fine wool, about 9 percent is long staple and the remaining 91 percent is short (Wolf, personal communication, 1981), making it even more difficult to hand process yet more desirable on the commercial market. Kinlichee women recognize the advantages of the old-style churro fleeces and tend to save the few such fleeces for special projects.

One of the most common colored-wool sheep at Kinlichee is the black sheep with a white spot on its head. Rarely used in its natural state because the color is streaky, the wool is usually top-dyed with an aniline-black dye before use in handweaving. Black wool brings considerably lower prices at the trading post because the commercial processors to whom the wool is sold also prefer to dye the wool for even color. In 1981 the Navajo Wool Grower's Marketing Industry was paying 70 cents per pound for white wool and only 40 cents for black. The same problems exist with the few pie-bald or "Jacob's" sheep with coats of many colors seen in Navajo flocks.

There are few, if any, "red sheep" (dibe liche'e) in this area. The reddish-brown fleece of this sheep produces the deep all-natural browns used in Two Grey Hills rugs. One Kinlichee woman trades with her son's mother-in-law at Tuba City to acquire red-brown wool with which to weave her "Two Grey Hills" style rugs. Sometime in the mid-1970s Hubbell Trading Post bought a number of such fleeces and distributed them to their best weavers for experimentation (Grieve, personal communication, 1979). Other weavers in the community are aware of the special color quality but few have ever used it in their weaving. When traveling in other reservation areas, they will point out sheep of this kind in others' flocks. Most of the "Two Grey Hills" style rugs from Kinlichee use the blended greys and browns of commercially processed roving for their "natural" colors.

In 1980 the sheep population in Navajo country was estimated at 429,000. Three million pounds of raw wool were produced that year, resulting in approximately one million pounds of cleaned wool (Norman Wolf, slide lecture, 1980-81). Only a small amount of this Navajo wool is retained by the sheep owners for their own use in handspun, handwoven rugs. The major portion is sold to traders and the Tribal Wool program for commercial use. In 1942 the USDA reported that approximately one-fourth of the total annual wool production (coincidentally also three million pounds) was handwoven into blankets and rugs (Grandstaff 1942:2). Ten years earlier the Indian Service superintendent at Fort Wingate, M. Dale, estimated that about 10 percent of reservation wool was retained for native

weaving (New Mexico Association for Indian Affairs annual report from the chairman, 1932). It is doubtful that even that much of the wool today is used in handwoven rugs. With the declining interest in herding the flocks and handspinning native wool, it seems likely that Navajo sheep will become less and less common as integral to the Navajo household and its activities.

Hand-processing the Wool

Sheffield spring-handle steel hand shears are still the most common means of parting a sheep and its fleece on the reservation. These scissor-like tools, which require much dexterity in order to avoid nipping the sheep's flesh while shearing, are sold in trading posts and by the Tribal Wool Marketing Program (\$9.00 in 1981). Electricity is not available in many areas and so electric clippers are not very popular. The Navajo Community College at Tsaile and various agricultural extension agencies do provide instruction in electric shearing, but until power is provided at individual camps, hand shearing will prevail.

Hand-shearing is more time-consuming and the blades require more frequent sharpening than those on electric shears. The gritty, sandy wool of a Navajo sheep is especially hard on shearing equipment. A two-man team observed in 1979 was able to shear an especially large and ornery four-horned Jacob's ram in approximately forty minutes, stopping every five minutes or so to sharpen their steel handshears. For a sheep of smaller, more average size, the average shearing time would be about fifteen to twenty minutes.

While Vogt indicated that the women do both the butchering and shearing (1961:304), it seems that these activities are shared almost equally among men and women at Kinlichee today. I have known men in other reservation regions who also take part in butchering and shearing. Lamphere notes a sharing of responsibility between Copper Canyon men and women in these concerns as well (1977:118-120).

The operation of shearing has changed little since Matthews described it in 1881-82 (1884) and again when Reichard made her observations in the 1930s (1934, 1936), as will be seen in the following description.

The fleece of a sheep generally comes off in one relatively unified piece (with small tag ends flying loose). After the shearing a fleece may be bagged for storage or it may be immediately spread out, sorted and prepared for use. Because the quality of wool--its texture, length, color and cleanliness--varies considerably from one part of the fleece to another, sorting must be done carefully to ensure uniform quality in the final yarn. Sorting may entail separating a complete fleece so that distinct piles of wool are formed and then each processed in turn, or it may progress as the wool is selected from the fleece in small batches, and carded and spun before the entire fleece has been torn apart.

After the sorting, the wool is pulled between the fingers and any small bits of debris and insects are removed. This stage, though generally downplayed because it requires no specific tools, is one of the most important means of controlling the quality of the

yarn. If the wool has not been thoroughly picked through, the spinning cannot be smooth and even. With extremely good picking, a spinner should barely have to card her wool.

Most Navajo weavers spin their wool "in the grease" before washing it. It is generally held that pre-washed wool tends to tangle and is more difficult to card and manage. There are only a few weavers (and none at Kinlichee) who have experimented with washing and dyeing unspun wool fibers and then blending the dyed colors together as they are carded. The resulting yarn has a heathered appearance, with fibers of different colors spun together.

The final step before spinning is the carding (ha'nischaad Young and Morgan 1980:408), done with a pair of carders---flat (or slightly curved) wooden paddles with rows of tiny wire teeth set into leather and attached to one face of each carder. Commercially-made carders (bee ha'nilchaadi 1980:160) have been available to the Navajo since at least the mid-nineteenth century when they formed part of the standard government issue to the Indians (Wheat, personal communication, 1982).

Carders today are obtained at trading posts, at the Navajo Tribal Wool Program, or in the department stores of Gallup and other border towns. Their cost averages \$15 per pair in 1981. Because of the relatively high price and replacement with pre-carded wools, weavers often only possess one pair of carders today. If family members or visitors want to help with the carding, they bring their own carders or take turns using the available pair.

Wool is mechanically cleaned and aligned by being combed between the carders. Beyond a woman's fingers that pull, pick, clean and sort the fleece, carders are the primary means of preparing wool for spinning. When finished, the wool is rolled into a long cylinder called, in English, a "rolag", in which the fibers are aligned spirally, ready to be attenuated and twisted into a yarn.

A time-saving machine called a carding drum is frequently used by bilagaana spinners, particularly those who produce large quantities of handspun yarn for sale. This hand-operated mechanism has two rollers covered with wire-toothed carding cloth. When wool is placed on one drum and the handle is rotated, turning both drums, the wool is combed between the wire teeth. An enterprising Navajo weaver at Two Grey Hills has acquired a carding drum and has put it to good use. No such devices have yet reached Kinlichee.¹

Electrically-powered carding drums have been reported among the Cowichan Indians of the Northwest Coast for preparing knitting yarns (Steltzer 1976:90). To the extent of my knowledge, none of this type are currently being used by Navajo spinners.

Spinning

In form and function, the long Navajo spindle (bee 'adizi Young and Morgan 1980:157) with its large round whorl has remained essentially identical since its Pueblo origins. A spindle stick of currant or other hard wood and whorls made of any kind of flat board or lumber were documented by the Franciscan Fathers (1910:226, 243). Matthews (1884:376) and Reichard (1936:49) both refer to the slender tapered stick of the spindle.

Because they are more efficient when absolutely straight and unwarped, spindle sticks are increasingly made from commercial doweling, with their ends tapered with a pocket knife or rasp. Sometime in the early 1970s Miles Hedrick, a trader on the western reservation, experimented with a metal shafted spindle. The tool proved too heavy and the idea was discarded (N. Bennett, personal communication, June 1982).

Whorls are standardly cut and shaped from a milled board, usually anything of suitable size that is found lying in the yard. Some women save a variety of different whorls and interchange them on various spindle sticks, testing their relative weights for the particular spinning project at hand. The heavier the whorl, the more momentum it will have when spinning. Reichard describes an unusual whorl of sandstone, found by a weaver's grandson near some ruins and used with special pride (1936:52). No similar material has been reported for contemporary whorls.

Navajo-style spinning is done with the spinner in a seated position, either on the floor (ground) or on a chair. Many subtle variations in style exists. The spindle end rests on the floor with the whorl positioned nearer to that end. The mid-portion of the spindle is supported against the right thigh of the seated woman. The tip of the spindle, where the actual twisting motion takes place, is initially supported by the fingers of the left hand, but once a length of yarn is spun the tip is suspended lightly from this yarn. The flat, extended palm of the right hand is used to rotate the spindle along the thigh, while the left hand manipulates and

smoothes the raw fibers about to be twisted. When the spindle reaches the upper thigh, the fingers of the right hand curl around the spindle stock and move it once again to the knee. The fingers may also rotate the spindle, by grasping it near the tip and twisting. When a bit of carded wool is attached to the tip of the spindle, spinning takes place on the upward stroke of the hand (from knee to thigh). The spindle's rotation causes the wool to twist and, with some attenuating of the fibers using both hands, the wool is transformed into a strand of yarn. Once a long strand has been spun, the spinner stops, tilts and spindles away from her body, thereby moving the spun yarn down the spindle and nearer to the whorl. She is then in position to wind the yarn around the spindle stick, against the whorl, by rotating the spindle with her fingers. When a cone of spun yarn is formed and the spindle is full, a ball of yarn is made and the process can begin again.

Navajo spinning requires much dexterity and patience. Compared with spinning on a treadle-powered spinning wheel (with a flyer mechanism to simultaneously twist and wind the yarn onto a bobbin), there is more emphasis on hand manipulations--smoothing, stretching, straightening the fibers--before the wool is twisted on the spindle. A Navajo spindle is frequently still, while the spinner is working the raw wool with both hands.

While a general description such as the above can be made, each spinner has her own idiosyncracies and preferences. Spinners may sit on the bare floor, on a sheep skin, rug or cushion, on a kitchen chair, couch or the edge of a bed. The spindle may rest to

varying degrees on the thigh and on the floor. The whorl may be placed low or high on the spindle and may vary considerably in size and weight.

At Kinlichee, all of the spinners that were observed rolled the spindle from their knee towards the upper thigh with their right hand when making a single-ply handspun yarn. Left-handed girls are taught to do it this same way. As a result, all of the yarns made today are Z-twisted, just as the majority of handspun yarns are in early Navajo blankets and rugs (Figure 6.1).

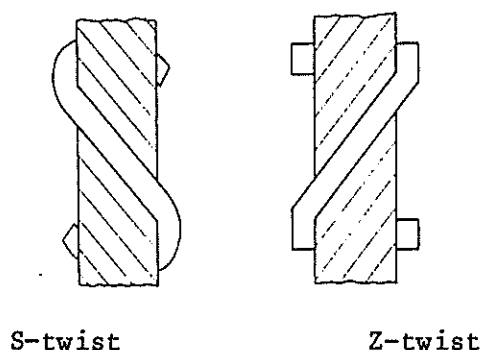


Figure 6.1 Direction of Twist in a Yarn

(from Emery 1966:11)

When plying two or more Z-spun yarns together for selvage cords, if their length is not excessive (and usually it is not because they are cut to approximately the length or width of the rug being woven), the plying is done by hand on the thigh, without the aid of a spindle. In the event that the cords are longer or when commercially spun and plied yarn is re-twisted, the spinner may employ her spindle, rolling it down her thigh and carrying it back up with her fingers. This procedure produces an S-plied yarn, the customary twist for any plied Navajo-spun yarn. Sometimes for

plying the spindle is turned upside-down, with the whorl nearer to the top, and rolled down the thigh as just described.

At least four of the better and busiest weavers have other women handspin some of their yarn for them. One weaver takes commercial wool roving to a lady at Cornfields and has her warp tightly spun. The spinner is paid approximately \$10 per pound. Another weaver has an older woman in Kinlichee who no longer weaves for herself card and spin nubby natural grey and white and brown wools for her. Again, the cost is about \$10 a pound. Another older Kinlichee woman spins yarn for a younger weaver who lives in an area west of Ganado, but who has relatives (not the spinner) in Kinlichee.

While not observed at Kinlichee, there is a notable spinning innovation occurring in certain parts of the reservation. A weaver at Coal Mine Mesa Chapter House and another living at the Gap (near Page, Arizona) have had treadle sewing machines converted into foot-powered spindles (personal observation, 1980). In both cases, male relatives of the spinners adapted the sewing machine base to hand-spinning by adding a straight spindle shaft and series of pulleys to the belt-driven mechanism. In one case the spinner's son used a bright blue skate-board wheel powered by the treadle-driven belt to rotate the straight spindle shaft. Apparently about ten years ago Miles Hedrick, built a similar treadle spinner and was able to interest about half a dozen weavers in using it (N. Bennett, personal communication, June 1982).

This type of spindle frees both of the spinner's hands in order to manipulate the raw fibers as they are twisted. The yarn,

once spun, must be wrapped around the straight spindle in a second set of motions. One woman employed her treadle-driven spindle to tighten the twist of commercially spun four-ply knitting worsted before using it as either warp or weft. She said that she also used the device to spin and tighten her own handcarded wool for warp. This spinner also had a handspindle nearby and could demonstrate its use with ease, although she apparently preferred the faster and less demanding treadle device. Another spinner used the treadle-driven spindle to spin both handcarded and processed wool for weft yarns.

Apparently this innovation is not unique to the Navajo--Cowichan knitters of the Northwest Coast also use a converted treadle spindle (Steltzer 1976:90). Its distribution among the Navajo, beyond the two cases cited above plus one other at Two Grey Hills, New Mexico, is unknown. An interesting study could be made tracing the development of this useful device.

Gladys Reichard notes that in earlier times after a yarn was spun it was smoothed by drawing it across a corncob or piece of sandstone, but ". . . nowadays only the oldest and most careful workers smooth their yarn" (1936:21). Today at Kinlichee this method is rarely, if ever, employed; no spinner mentioned using it.

Alternative Material Sources

In the following section the numerous fiber and yarn alternatives to wholly hand-processed raw wool will be discussed. While at first some of the recent trends may seem strikingly new and "untraditional" there is repeated historical precedence for Navajo experimentation and adoption of foreign materials. Bayeta,

Germantown yarns and cotton string warps of the nineteenth century are only a few, if best known, of the readily borrowed materials in Navajo weaving.

Pre-carded wool. As stated earlier, the procedure for spinning yarn has remained much the same since at least the nineteenth century. A long spindle with a round flat whorl is still used although the wood for this tool is as likely to have come from a hardware store as it is directly from a tree. It is the carding of raw wool, the stage that traditionally precedes actual spinning in which a major change has occurred. Now that commercially processed wool roving is widely available on the reservation, the cleaning and carding of raw wool can be eliminated altogether in weaving a "handspun" rug. Hand carders, once standard equipment, have been discarded by increasing numbers of spinners.

Processed wool, also called roving, tops or sliver, is commercially cleaned and carded wool that is ready to be spun. In industry, producing a sliver is one of many steps in the commercial spinning of fibers. For handspinners, spinning from tops eliminates most of the time-consuming preliminary stages of preparing the wool. On the reservation, the all-wool product comes in long, thick strands approximately ten to fifteen centimeters in diameter, wound onto a large spool. The fibers are aligned roughly parallel to each other and along the long axis of the roving.

Commercially processed wool was known in the Southwest as early as 1903 when J. Lorenzo Hubbell had 476 pounds in stock at his Ganado trading post (Hubbell Papers, University of Arizona Special

Collections; Wheat n.d.: Part III, 95). J.B. Moore who owned the trading post at Crystal from 1897 to 1911 sent Navajo wool to the East to be scoured clean for his most competent weavers (Wheat 1976:9); according to Moore's daughter as told by Crystal trader Don Jensen, Moore's wife supervised the local dyeing of some of the wool (Wheat, personal communication, 1983; Kent 1981:14; McNitt 1962:255).

There have been numerous efforts at bringing processed wool to the reservation, but none that have yet left a permanent mark on Navajo rug weaving. In the 1930s Bruce Barnard, trader at Shiprock, reportedly had Navajo wool carded, cleaned and dyed at the Pendleton Mills in Oregon for his Navajo weavers (New Mexico Association on Indian Affairs, field report, January 22, 1932). It is difficult to guess how many other traders carried on a similar practice; undoubtedly there were others who did. In 1943 a wool scouring project was carried out between Texas Tech University in Lubbock and the Fort Wingate Experimental Station in New Mexico. Little has been published on the results of influence of this project, samples from the wool experiments are in the collections at the Wheelwright Museum of the American Indian in Santa Fe.

In 1950 the Navajo Tribal Council approved the construction and support of a wool processing plant at Leupp, Arizona. Wool roving was produced from Navajo fleeces and was distributed through reservation traders (Anderson 1951:90). The program apparently did not do as well as hoped; records of its existence are scarce. By the mid-fifties the plant was no longer in operation. During the

1960s processed wool was available at the Navajo Arts and Crafts Guild (now Enterprise) through the influence of Councilman Ned Hatathli and trader Russ Lingruen (Lingruen, personal communication, August 1979).

During the decade of the '70s several steps were taken to improve wool production and to sponsor wool processing. It remains to be seen whether these will have significant and lasting effect on weavers or whether the improvement program will limp along as the previously mentioned projects did. Between 1970 and 1974 at a time when national wool prices were dangerously low, the Navajo Tribal Council established a wool buying and marketing program for Navajo fleeces, with government subsidization of wool prices to maintain fair market values for the wool producers. In 1974 the Overall Economic Development Program for the Navajo Nation approved expenditure of \$697,000 of Public Works funds to establish a wool processing plant at Shiprock, and another \$25,000 in Technical Assistance funds for a wool marketing study (Navajo Tribe 1974:151). The processing plant has yet to be built, although the Tribe is directly involved in buying wool, contracting out the scouring and dyeing, and marketing the roving to traders, weavers and others through the Shiprock Wool Program. By March 1976 a permanent central wool warehouse was dedicated in Shiprock. Five satellite warehouses around the reservation were constructed to receive fleeces. Wool is sorted, graded, baled, weighed, inventoried and stored. A portion of this wool was sent to an off-reservation commercial processor for scouring, carding, dyeing and return to Shiprock for marketing on

the reservation. Some of the wool is converted to unspun roving, other as single-ply yarn ready for the loom. Eight colors are currently available---white, black, Ganado Red, dark brown, light brown, light and dark grey, and a tawny-peach. The wool and yarn are marketed through traders, the Navajos Arts and Crafts Enterprise, and directly through the Shiprock plant. The program also sells hand shears, wool bags and ties, and branding paint. In 1981 some of the original processed lot was still available; the program had not decided whether to have more wool processed commercially for re-sale or not. In 1980 the Tribe was still considering building a processing plant at Shiprock but no decision had yet been made (William Tso, personal communication, July 1980).

In addition to the Tribal Wool Program, traders are buying other types of processed wool roving directly from outside wool processors and marketing them to weavers. Current sources for roving seen in reservation and off-reservation trading posts include Canada, Oregon, Washington, Ohio and others. Some of the wool is from New Zealand sheep.

White roving ranges from a creamy yellow-white to a stark bleached white. A full range of greys and browns, from dark to light, a very light bluish grey to a dark grey-brown are available. Several shades of red and a flat black are made. An unusual tawny-peach color began appearing sometime in 1980 or 1981, presumably in imitation of a vegetal-dyed yarn. By the summer of 1982 a large number of weavers were experimenting with this unusual color.² With the exception of white, all other colors contain some

amount of aniline dye. In the cases of some greys and browns, natural white fibers have been blended with aniline-dyed black, grey or brown fibers to attain an extremely even, heathered tone. Using natural colored sheep's wool in the commercial process is not economically prudent. White processed wool is sometimes dyed by the weaver with their own vegetal dyes, either before or more usually after the spinning. Weavers in the Kinlichee area frequently top-dye the aniline-dyed red roving with packets of "Cardinal Red" to obtain the darkest possible shade of red, known commonly as "Canado Red." A weaver may also choose to re-card processed wool with other wool to produce a specific blend of colors.

Processed wool from the Shiprock program sold for between \$6 and \$8 per pound during 1977 and 1981. (In 1903 J.L. Hubbell paid 75 cents per pound for 476 pounds of "roving yarn"). Trading posts, on and off the reservation, raise the price according to what they consider fair and what the market will bear, generally 10 percent to 100 percent. A weaver will usually buy only the amount of wool that she needs for a specific project, rarely having enough cash to invest in more, much less in a whole spool of roving.

The first thing a spinner does with the roving is to split the thick piece into a more manageable width, usually one to two centimeters in diameter. Then after stretching the hank out with her fingers to further attenuate the fibers, she must go through all of the motions of handspinning on her traditional handspindle. As with handcarded Navajo yarn, processed wool may be re-spun a number of times until the desired thickness and degree of twist is

achieved. A popular material for making warp yarn, roving may be spun seven or eight times to make the warp extremely smooth and strong.

The resulting yarn is most definitely handspun, but simply was not handcarded. The appearance of processed wool weft in a rug is far more even than the average handcarded wool. The surface texture of most processed wools are somewhat fuzzy and soft, rarely hard and smooth like many handcarded yarns, and harsh kemp wool is never present. The colors are also unusually even. The greys, because of their remarkably well-blended tones, are often the first to betray their commercial origins. When other dyes have been applied to processed wool (vegetal dyes, for instance), they also seem to take evenly and thoroughly, probably due to the well-scoured nature of processed wool.

In recent years the popularity of processed wool has increased markedly. Chapter houses, Navajo Community College and others offering weaving classes use roving to teach spinning techniques. Many of the rugs seen for sale at trading posts contain some processed wool; rugs sold at Crownpoint rug auctions generally contain some of this material.

Like the turn-of-the century controversy concerning cotton string warp and whether it should be used by Navajo weavers, processed wool is a bone of contention for many traders and collectors. While it is a time-saving device that actually makes weaving possible for some women, it is not traditional, nor is it genuinely hand-made. Many of the rugs containing processed wool have a flat,

dull appearance because of the uniform texture of the yarn; some see this as an improvement in quality and control of the weaving, others see this as a detraction from the character of a handwoven fabric. Because many of the large and impressive reproduction rugs woven at Hubbell Trading Post are made with processed wool, its use in the Ganado and Kinlichee areas is commonly accepted by weavers. There is no stigma attached to it there. This does not mean that the weavers do not recognize the difference in quality of two materials--women will point out a "real" handcarded rug in the Two Grey Hills area where rugs and tapestries are reknowned for their natural sheep colors. Those with processed wool are easily recognized and the weavers termed "lazy" by other weavers from this area. As will be seen through the course of this section, there are other materials far more negative than roving; on a relative scale it may be said that with roving the weaver is at least allowed some amount of control over the size of her yarns in proportion to the rug planned.

Normally one does not see roving of synthetic fibers for sale on the reservation although it does exist in specialty weaving supply stores elsewhere in this country. In the mid-1960s, however, an experiment took place at Window Rock. Russ Lingruen, then the manager of the Navajo Arts and Crafts Guild/Enterprise, obtained some roving made of a nylon-synthetic blend which he then gave to Bertha Shaw, a weaver from the Pine Springs/Wide Ruins area, then living in Window Rock. She experimented with native dyes on the synthetic fibers, spun them and wove them into several handsome rugs

that are now part of the Navajo Tribal Museum's permanent collections. According to the weaver the fibers were extremely difficult to deal with: they did not take the dyes well, they were stiff to spin, and the yarn had to be cut with scissors rather than by hand as with wool. Breaking the yarn so that the ends are feathered rather than bluntly cut is essential to the way in which a Navajo weaver invisibly adds new segments of yarn to her weaving; with the tough synthetic fibers this became impossible. So far as I know, no one else on the reservation has experimented with synthetic roving. A few of the weavers from Kinlichee to whom the experimental rugs were shown expressed doubts that the material was wool but were uncertain what else it could be (they are, of course, aware of acrylic and other synthetic yarns, but not the raw fibers).

Commercial single-ply yarns. The availability of commercial single-ply weaving yarns, like that of processed wool, goes back at least to the turn of the century. From this period, a few woven specimens containing a densely spun, single-ply yarn with a high percentage of kemp wool are preserved. (For example, there are two "carpet yarn" rugs at the University of Colorado Museum). Apparently the yarn was only available for a short time and had limited utility to weavers (perhaps because of its cost compared to using one's own sheep's wool). During the 1930s, '40s and '50s emphasis was placed upon improving sheep breeds and native wool sources rather than on the importation of commercial products.

During the past decade the Shiprock Navajo Wool Program has been marketing a single-ply yarn from Navajo sheep's wool. It is

commercially spun from the Tribal roving and comes in the same eight colors. The surface texture of most processed yarn rugs is even more uniform than those made from handspun processed wool, with a dull regularity to most designs woven with the material. At the Shiprock warehouse, four ounce skeins sold for \$1.75 in 1980 and for \$2.00 in 1982, with anywhere from zero to 100 percent mark-up at trading posts.

Unlike processed wool, because the yarn is pre-spun in only one weight, it is not suitable for all types of weaving³. It is not fine enough to use in small tapestries, and it does not have the body or weight to pack into a substantial, large rug. Nevertheless, many large, soft rugs have been loosely woven with the Tribal yarn; these limp rugs would make better blankets than floor coverings. The yarn is acceptable for medium size, medium grade rugs and is ideal for weaving twill saddle blankets in which the weave itself allows for a thick packing of the weft.

Some weavers do re-spin the Tribal yarn into a relatively good warp yarn, indistinguishable from handspun warp, except for its uncommonly bleached white color, the uniformity of fibers and lack of kemp. These criteria being rather subtle and wholly relative, it is easier to identify the presence of a handspun warp with yellowed or kemp fibers than to distinguish between a well-cleaned and sorted handspun warp and a commercial single-ply one.

In addition to tribally-sponsored yarn, a few prosperous traders have had their own single-ply yarns produced, based on Navajo yarn standards. The string of trading posts owned by members

of the Foutz family from Shiprock and Farmington is the supplier of one of the largest arrays of such yarns, some of which contain beautiful lustrous New Zealand wool. The colors of this wool are quite distinct from the Tribal wools--a creamy white as compared with the Tribe's more stark white, and varying shades of grey and brown.

In addition, commercial single-ply weaving yarns manufactured in New England mills and elsewhere are very popular among bilagaana weavers around the country. The Museum of Northern Arizona did a survey of yarn and knitting shops in the Flagstaff area in 1980 to determine what commercial yarns might be available to reservation weavers. A variety of yarns including cotton warp and 100 percent wool yarns from Iceland, North and South Carolina and New York were found in natural or pseudo-vegetal colors and suitable for Navajo rugs (Gallagher, personal communication, August 1980; Allen, personal communication, January 1983). Mary Pendleton's Weaving Shop in Sedona, south of Flagstaff, is a weaving yarn shop close to the reservation. For years, Pendleton's has sold specialty yarns to the few Navajo weavers from the western reservation that could afford them. Pendleton's also sells Navajo-spun yarns to bilagaana weavers. Only recently have trading posts on or near the reservation begun to carry high quality weaving yarns such as those obtained through Pendleton's or directly from mills such as Condon's in New Hampshire.

The use of non-tribal single-ply yarns has not yet become common on the reservation. These specialty yarns are considerably

more expensive than the Tribal wool or yarn, or those generally sold in trading posts. sponsored yarns. Moreover, the few posts that currently sell these materials are far from Kinlichee. None of these bilagaana specialty yarns are known to have reached the Kinlichee/Ganado area.

Commercial multi-ply yarns. Wheat has reported the earliest known sale of commercial yarns to the Navajo, to date, in 1841, although there are records of commercial yarns among the Spanish in the Southwest since 1598 (Wheat n.d.: Part III, 86, 90). In the years after 1841 a variety of yarns with names like Germantown, Saxony and Zephyr, originating in the U.S., England, Germany, Spain and elsewhere, were imported to the Southwest for Navajo use. Three- and four-ply Germantown yarns were supplied in great quantities to the Navajo by the U.S. government after the Navajo incarceration at Bosque Redondo:

Before the annuity issues cease in 1879, nearly 75,000 pounds of commercial yarn had been issued to the Navajos, enough for 25,000 three-pound blankets if used alone, and for many more when used in conjunction with homespun and raveled yarns as most of them were. (n.d.:91).

By the 1890s the use of four-ply Germantown yarns in a wide array of strong aniline-dyed colors prompted the term "eye-dazzler" to describe the brightly patterned textiles often made wholly of commercial yarns. Around 1900 another four-ply yarn, "carpet yarn", was briefly available to Navajo weavers (n.d.:98). The use of four-ply yarns in bright colors continues into the twentieth century in certain Navajo textiles to be seen, not so much as dramatic innovations, as yet another example of historical continuity: the Navajo

propensity to incorporate new materials into their work on their search for both variety and expeditious production methods.

The four-ply yarns, usually labeled "knitting worsted", that are available to the Navajo today as in the nineteenth century, are soft and lightweight, and will not pack well into a woven fabric. Thus, a weaver must tighten the yarn's twist and make it denser before it is used as either weft or warp. The tightening is done by re-spinning the yarn on a handspindle, turning it in the same direction in which the yarn was originally plied (S or Z). For warp yarns, the re-spinning may be repeated until a very strong, smooth cord is produced, just as with handcarded or processed wool warp.

Commercial materials of all sorts have met with varying responses from traders, collectors and scholars. Trading posts, of course, were and still are the chief source for commercial yarns and thus it was traders who first introduced the Navajo to such materials. Germantown yarns, in particular, were first lauded for their brilliant colors and consistent texture, and later deplored for their garish and machine-made qualities. Commercial yarn was originally seen as the savior of native weaving because it would save the spinners' time for weaving; soon the perspective changed and commercial materials were blamed for the decline in the quality of so-called traditional weaving. The controversy still remains, with many trading posts carrying four-ply yarns (ostensibly for knitting and crocheting) but paying lower prices for rugs containing such yarns. The actual quality of rugs containing commercial yarns ranges widely, from crooked and loosely woven throw rugs with simple

or perhaps unbalanced designs, to elaborately patterned and technically excellent works of considerable value.

A number of regional rug styles that allow for a relatively consistent use of commercial four-ply yarn as weft have developed in the last thirty or forty years. Re-twisted yarns are typically found in rugs with the Teec Nos Pos outlined serrate pattern, in yei and yeibichai rugs, in some of the novelty pictorials especially from the Shiprock/Round Rock area, and in the raised outline weave from Coal Mine Mesa, Arizona, and Blanding, Utah.

While an increasing amount of processed wool and yarn is seen in Ganado-style rugs from Kinlichee, commercial yarns are not used in these rugs. At Kinlichee the commercial four-ply yarns are reserved primarily for warp-faced sash belts and for the first projects of some beginning weavers. In addition, several contemporary biil, the traditional woman's two-piece dress, have been made at Kinlichee with red and black commercial yarns containing a combination of wool and synthetic fibers. Interestingly, three of these dresses were made for native use, to be worn at a kinaalda (girl's puberty ceremony), during a curative ceremony (or sing) and in a CETA fair parade. In each of the three cases the weaver (usually a relative or friend of the eventual wearer) had relatively short notice for the dress order and was weaving with a deadline. This suggests that the commercial materials were perhaps chosen so that the woven project could be completed in the required time.

There are now available several commercial warp yarns already tightly spun and plied. A four-ply wool yarn, ideal for

warp, is sold in spools at Russell Foutz' Indian Rug Room in Farmington and at Mary Pendleton's Weaving Shop in Sedona, among other places. While it is a plied yarn, because it has been twisted tightly it is very difficult to distinguish from handspun warp in a rug unless magnification is used. It is nearly impossible to differentiate between this yarn and a white four-ply knitting worsted that has been re-spun for use as warp. A synthetic fiber is used in another plied warp yarn sold around the reservation. Extremely strong and smooth, this yarn has a bluish-white cast and can be identified by its shiny cellophane-like appearance. Again, it would be impossible to tell the difference between this yarn and a synthetic knitting worsted that had been re-twisted by hand for warp.

For extremely fine tapestry-grade textiles (with more than 90 wefts per inch), commercial plied yarns are sometimes split so that a single fine strand can be used for weft. While this is a time-consuming process, it is relatively efficient compared with the time and concentration involved in handspinning a super-fine yarn. The practice has gained popularity among weavers who make Two Grey Hills style tapestries and miniature versions of regional style rugs, often measuring only a few square inches. Neither of these types are generally woven at Kinlichee, so splitting yarns is not seen as much as it is in the northeastern portion of the reservation, particularly along the Highway 666 corridor between Tohatchi and Shiprock. One weaving family in nearby Sawmill does indeed weave super-fine yeibichai dance scenes; many of these contain

split-strands of yarn. It remains to be seen whether the splitting technique is eventually employed at Kinlichee as well.

Synthetic yarns. A synthetic warp yarn and experimental synthetic roving were discussed in previous sections. While the warp is a relatively new material introduced in the last several years, there are other synthetic yarns that have been around for more than a decade and have been used more frequently than is sometimes acknowledged. Acrylic knitting worsted, in particular, is a common item on trading post shelves. Ostensibly for knitting and crocheting, it is also used by weavers who re-twist it for both warp and weft. Other yarns such as a shiny nylon blend appear regularly in the posts.

The comparatively low cost of synthetics versus wool makes these "counterfeits" (as Herman Coffee, the Crownpoint rug auctioneer, calls them) increasingly appealing to weavers despite the complaints of rug buyers. The shiny appearance and cold feel of most synthetic yarns is a clue to their fiber contents and a source for complaints of inauthenticity. However, recent improvements in manufacturing processes make it increasingly difficult to detect synthetics without high-power magnification or a burn test. (Synthetics melt and, when cooled, form a hard "bead", while wool burns to an ash).

At Kinlichee, the use of synthetic yarns, like that of other plied commercial yarns, is generally limited to beginner's rugs and to special projects such as sash belts and non-woven ojos de dios.

Often a small amount of synthetic material may be used in conjunction with wool yarns. Acrylic yarns are used for hair ties (tsiitl'ool Young and Morgan 1980:911) on the traditional hair knot that women and some older men wear (tsiiyee Young and Morgan 1980:911) although some women say that these should only be made with handspun wool.

In the late 1960s a weaver from St. Michaels who worked as craft demonstrator at the Navajo Tribal Museum in Window Rock did some unique experimental weaving with synthetic yarns. Martin Link, then director of the museum, bought a quantity of shimmery nylon-blend yarn in brilliant hues and presented it to the weaver with instructions that she weave it into the most untraditional, untypically Navajo designs. After some initial trials, the results were a surprisingly Mondrian-like geometric arrangement of blocks. At least half a dozen similar rugs were made in this manner (two may be seen in the collections at the Navajo Tribal Museum; and one at University of Colorado Museum). Although weavers from Kinlichee observed the production of these synthetic rugs while on display at the Tribal Museum, no residual influences on the local weaving is apparent.

Cotton string. Wheat has calculated that between 1863 and 1878 approximately 2000 pounds of commercial cotton yarn was provided to the Navajo through U.S. government annuities (Wheat n.d.: Part III, 102). This represents the earliest known record of cotton string used by the weavers as warp. By the late 1870s cotton warp was a standard item at trading posts (n.d.:103). The Hubbell

Papers show that cotton string was a common commodity at Ganado between 1884 and 1903, selling for between 60¢ and 70¢ per pound (University of Arizona Library, Special Collections; Wheat n.d.: Part III, 203).

In blankets and rugs in which it is used, cotton string replaces the time-consuming process of spinning and re-spinning fine wool warp. Often used in conjunction with Germantown wefts during the late nineteenth and early twentieth centuries, it allowed weavers to proceed with their weaving without the preliminary processes of sorting, carding and spinning.

Cotton and wool fibers and yarns have contrasting qualities that explain the weavers' initial attraction to cotton and the traders' and collectors' eventual dislike of the same material. The time-saving aspect of cotton string is mentioned in the previous paragraph. Cotton does not stretch like wool and thus there are fewer tension problems with cotton warp; it is easier to make a straight-sided rug with string. Commercial tests show that cotton is stronger than wool either dry or wet, however, cotton has little resistance to abrasion in contrast to wool (Textile Handbook 1966:10, Table 1), making cotton weaker in the long run, for warp threads must withstand constant beating and scraping during the weaving process and further wear during their tenure in a rug. Cotton is not as flexible a foundation material as wool, making a rather stiff rug. Finally, despite its longstanding history in the southwest as a native fiber, commercial cotton does not have the "traditional" Navajo connotations such as those associated with sheep's wool.

Traders such as Hubbell initially saw the advantage in increasing production with the use of cotton string. However, opinion at the turn-of-the-century turned against "counterfeit" cotton string. In 1903 Hubbell's ceased stocking cotton string. In the same year, George Pepper described the Germantown/cotton warp rugs: "Hideous colors concealing a sister disgrace in the form of cotton warp" (1903:10). Amsden mentions the efforts of Fred Harvey and other "traders of late years" to discourage cotton string's use (1943:93, 191, 193). Hollister (1903:125) and James (1914:48-49) followed suit.

Anderson (1951:41-42) reports that in the 1940s trading posts were simultaneously selling and discouraging the use of cotton warp. The same practices continue today.

Cotton string is available in trading posts around Kinlichee and some women use it to speed their weaving. Rather than using a single warp material for all projects, many weavers choose from a variety of warp types, depending upon the specific project at hand-- cotton string for less elaborate rugs and small throws, handspun wool for finer, well-planned rugs, re-twisted processed yarn for saddle blankets and middle-grade rugs, and so forth. Occasionally one finds an unusually good rug with cotton warps underneath the carefully spun and woven wefts. Wool is still the most common material for warp, however. If cotton warps are discovered by a trader the reaction may vary from lowering the offered price to refusing to buy the rug.

On two occasions when weavers were queried about why they used such a cheap material on rugs of otherwise high quality, the

response was a shrug and a brief comment about the unavailability of both time and raw wool. Both weavers were hoping that the trader or other potential buyer would not notice the warp material. Another weaver claimed that the commercial string warps on her loom were handspun wool. Apparently aware of the discrimination that cotton warps receive, she insisted that she had not purchased them ready-made.

Weaving Tools

Loom Frames

The "true loom" of the Navajo, as it is called by Kent (1961:2), is patterned after Pueblo models. This loom is designed to be suspended from a ceiling beam and anchored into an earthen floor, as the Hopi loom frame is installed inside a kiva (Underhill 1944:41-53). In 1884 Matthews (1884:377-8) described the "ordinary blanket-loom" of the Navajo as supported by two posts set firmly into the ground, or two slender trees growing at a convenient distance. A "typical" loom with the lower beam weighted and secured to the ground by three large buried stones is reported by Pepper (1902:39). An examination of historic photographs from the late nineteenth and early twentieth centuries shows a variety of loom supports--ceiling and floor anchors, diagonal braces, live and dead trees, but the stationary loom constructed of handhewn logs and occasional milled lumber, lashed in place with rope or wire, is the standard format. This type is maintained into the 1930s when Gladys Reichard reported:

The loomframe consists simply of two uprights and two crosspieces of heavy wood. The Navajo cut the uprights from pinon. Naturally they trim off the branches but they do not smooth down too much the portions from which they are cut. They skin off the bark but somewhat carelessly. They may leave a fork at the top of the two uprights, so that the upper crosspiece may be laid in the crotches. (1936:59-61).

Although Reichard does not specifically note that the rough quality of the side supports is functional in providing a textured surface to which the crosspieces can be more securely lashed, this becomes apparent when smooth milled lumber becomes popular for loom-building and modifications must be made for attaching the crosspieces.

Reichard also describes the then-standard practice of fixing the loomframe firmly to the earth floor. She aptly notes the variety of solutions to structural problems and the ability of the Navajo weaver to make adjustments in "standard" plans.

Reichard herself constructed a portable solution to the traditional Navajo loom, a free-standing model made of milled lumber with mortise-and-tenon joints and holes in the side supports for adjusting the loom bars. She used ideas from the large teaching looms built at Fort Wingate's vocational school. This type of loom strongly foreshadows present-day developments.

In the intervening decades since Reichard's work, versions of the free-standing loom have become extremely popular with weavers. While dirt floor hogans are still inhabited, wooden and linoleum floors in both hogans and frame houses have become common. Unless outdoors, looms can no longer rely on 'roots' into the ground for support.

At Kinlichee a variety of looms (dah 'iist/'o Young and Morgan 1980:938) exists today, but the predominant type is made of

milled lumber, with holes in the side supports for adjustment of the beams, angle iron braces, and a supporting base (Figure 6.2). It is, in fact, the kind of loom now used at Hubbell's Trading Post by craft demonstrators from Kinlichee and elsewhere. The father of one of Hubbell's demonstrators is reputed to have made the first such loom at Kinlichee for the trading post in the 1940s. In the 1970s the Kinlichee Chapter House sponsored a work program in which men constructed similar looms on a smaller scale, some of which were sold to weavers and others that are still used in the Chapter's arts and crafts education programs. Men in the chapter continue to make this kind of loom for sale and as gifts.

Other loom types still used at Kinlichee include a frame constructed outdoors between two live trees, a frame lashed to the upright supports of a summer shadehouse, and one supported by two rough log uprights driven into the ground. Unusual adaptations from materials at hand, such as a loom built by upending a child's metal bedframe and wiring the loom bars to it, are not uncommon.

Of increasing popularity, although more expensive, is a specially-designed welded metal loom frame. Useful accessories attached to the loom frame include a series of nails, blocks of wood or pegs that serve to hold up the heddle and shed rods when not in use. According to Anderson, (1951:89-90) in 1946 Clarence A. Wheeler "and his associates brought out a sturdy upright loom in metal made in various sizes". Apparently the loom was equipped with ratchets for tensioning and advancing the warps. Wheeler has traded at Lower Greasewood and Sunrise Springs Trading Posts, at the latter

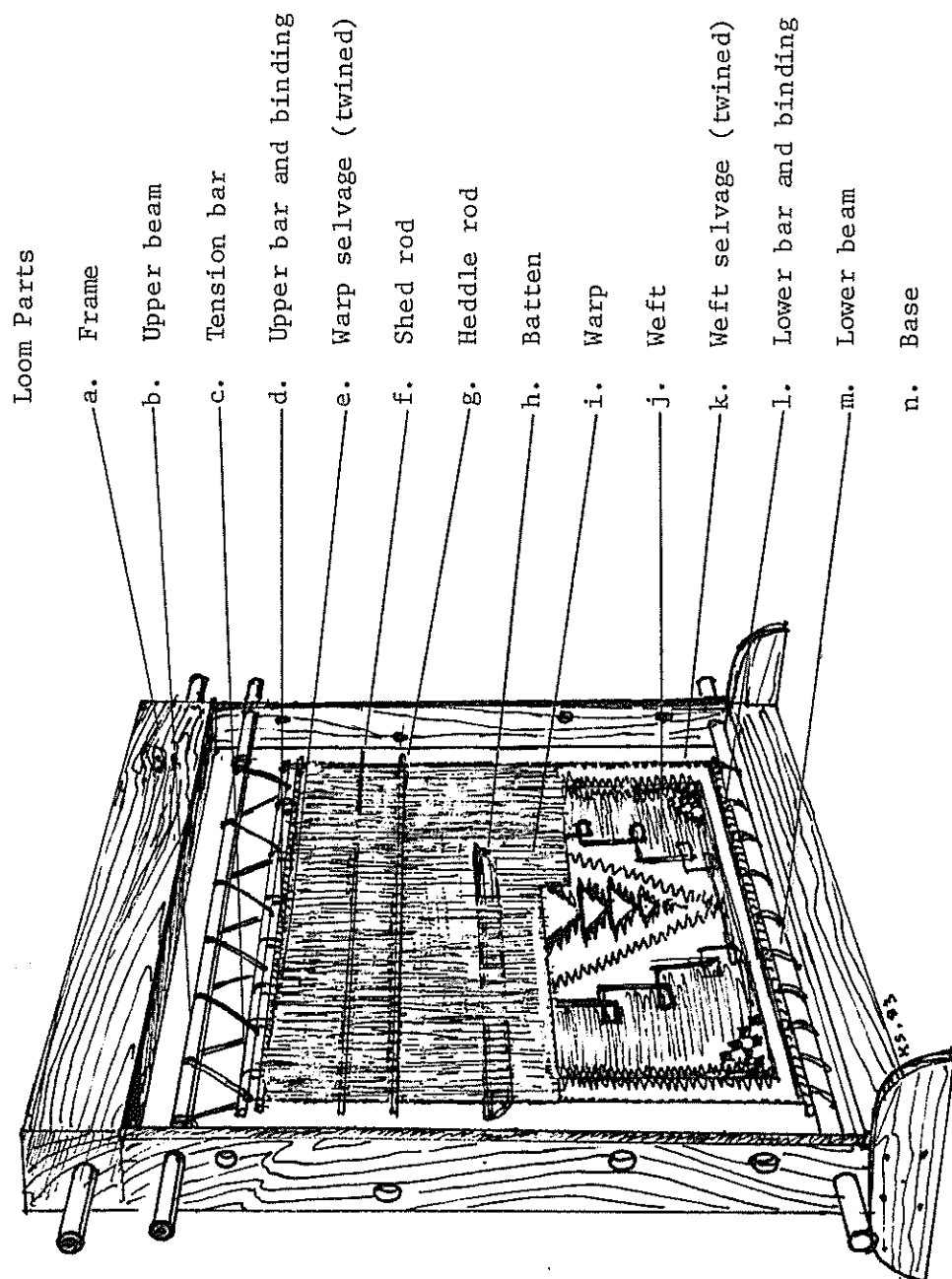


Figure 6.2 A Modern Navajo Loom

since at least 1925. Whether his ideas were original, and whether his loom designs eventually diffused or were independently invented in other parts of the reservation is not known. At least one weaver at Wide Ruins had her loom put together for her by a bilagaana welder who has a machine shop in a nearby border town. Others prefer to keep their loom sources secret.

Men are generally the loom fabricators, although it is not unheard of for a woman to build her own. The type of loom that a woman uses, as Reichard notes, depends largely upon the time of year and the sort of house in which she lives (1936:66). It is also dependent upon the frequency of her weaving, her income, and the amount of help her male relatives are willing and able to give in loom construction. It is important to note that a single weaver may own a number of different looms for different purposes. There are Kinlichee women with as many as five looms, often several warped and with rugs underway at one time.

Looms Bars and Additional Parts

The beams and bars to which a rug's warps are attached inside the loomframe are extremely important in providing even tension across the width of the rug (Figure 6.2 b, d, l and m). If these bars are warped or bent, uneven tension and a crooked rug will result. For this reason the materials of these loom parts have become considerably refined since the use of rough handcarved stocks in Matthews' time.

The first major modification was the use of heavy dowels or commercial broomhandles for the upper and lower anchor beams, the

tension bar, and the warp bars (cf. Reichard 1934:40). The loom with "swiss cheese" side supports made possible the addition of even heavier anchor beams, and so metal pipes have replaced these dowels on many looms.

The shedding mechanism itself--the use of a shed rod and a heddle rod with string loops (heddles) to separate every other warp thread in order to insert the weft between the warps--has remained essentially the same since at least the nineteenth century (Figure 6.2 f and g). The heddle and shed rods, previously handcarved, are almost always made of hardware store dowels now. Heddle loops are almost always made of commercial cotton string or wool yarn, rarely, if ever, of handspun yarn.

In order to keep track of heddles when making a four-heddle weave and to find the center warps easily, a few women use color-coded heddle strings, changing the color for each heddle rod or changing the color of the heddles in the center of the rod. This was observed on a child's loom, presumably to help the twelve year old weaver follow a complicated two-faced/twill block weave that she was learning.

Tensioning and Warp Extension Mechanisms

Two of the major features of any loom are the manner in which the warp tension is maintained and adjusted, and the way in which the length of the warp threads is extended beyond the basic length of the loom itself. Navajo looms in the late nineteenth and early twentieth centuries appear remarkably conservative in their

manner of coping with these factors. At present with the availability of modern technology, looms seem to be in the process of continual modification.

With the exception of mentioning balewire and pliers for fastening the warp bars to the loom beams, Reichard's 1936 and Anderson's 1951 descriptions of the tensioning on a Navajo loom are identical to that of Matthews, written in 1884 (1994:377-8). In all three cases, as in many historic photographs of looms, the warps are held taut by means of a spirally wound cord linking the upper anchor beam to the tension bar, which is in turn lashed to the upper warp bar (Figure 6.2c). By adjusting the length of the cord, a weaver could control the amount of tension applied to the warps.

Rope tensioning is still used occasionally, but other devices are now employed as well. Metal turnbuckles attached with wire or rope to the upper loom beam and to the tension bar are an efficient means of controlling tension evenly. They are seen frequently on Kinlichee looms, even on otherwise modest little loom-frames.

Turnbuckles welded to the metal anchor beam and tension bar were observed on a loom at Wide Ruins; the weaver had a bilagaana welder friend in a nearby reservation border town who did the special order job for her. No welded turnbuckles have yet turned up at Kinlichee.

Another special loom attachment is a revolving upper anchor beam with an attached ratchet to maintain tension. This kind of device is common on European-style floor looms, usually used on both

front and back revolving beams. Ratchets are present on less than half a dozen looms at Kinlichee. More will be said about this mechanism in the following discussion.

Normally a Navajo weaver is seated on the ground or on a low pillow, box or chair in front of her loom. With a long rug mounted on the loom she must manage to reach the unwoven portion of her rug even as her weaving progresses higher and higher on the loom. Traditionally this problem was solved by loosening the tension bar's lashing, lowering the upper warp bar, and then sewing the woven portion of the blanket to the lower bar/beam cords to keep it taut and so that the unwoven portion of the warps remains accessible to the seated weaver (Matthews 1884:380). Reichard speaks of this sewing-down technique as the standard technique of the 1930s (1936:81). By the 1940s however, the method was becoming a "thing of the past" in the Ganado/Kinlichee area (Anderson 1951:28). While Anderson observed sewing-down on one loom, it belonged to an elderly woman. Most of his informants considered it an "old fashioned method" that was too difficult and too time-consuming. A major disadvantage to the sew-down is that the woven portion of a textile is hidden from view; for symmetrical designs this is a distinct handicap and it is a credit to nineteenth century weavers that their blankets show such remarkable symmetry. As far as is known, the sew-down technique is not in use at Kinlichee at present, having been replaced completely by the devices discussed below.

In the traditional manner of weaving, the distance between the two beams on the face of the loom represents the maximum length

of the blanket (Matthews 1884:377), regardless of whether the sewing-down method is used or not. From a painting at Hubbells Trading Post, Reichard (1936: Plate IV.d) illustrates an unusual loom with the warps twice the length of the beam-distance. The cloth-bar and a portion of the finished fabric are lashed to the bottom of the loom and the extended warps that are attached to the warp-bar are brought forward over the upper beam. The warp-bar is lashed onto the front of the loom, just above the weaver's head. Reichard (1936:76) presumed that this system was common in the early days and noted that it was rarely used at the time of her study. This particular warp configuration has not been observed at Kinlichee or elsewhere on the Reservation, but variations on this theme are common.

By far the most popular means of weaving rugs larger than the basic length of the loom is just such a variation. The milled lumber loom with holes in the side supports for adjustment, increasingly common at Kinlichee, is made especially so that the warps can be wrapped around the upper and lower beams and extended to the back side of the loom. In contrast to Reichard's model in which the warp is brought forward over the upper beam, all of the looms of this type observed during this study have the warps extending to the back of the loom where, in the case of an extremely long warp, an extra doubling of the warp could be made over a supplementary bar. The beams' placement can be adjusted, keeping the unwoven area at a convenient height as the weaving progresses. The already completed portion of the rug remains visible at the back of the loom. While

developed for a wooden loom, the same sort of system is used on a number of welded metal looms.

Matthews (1884:377) mentions having seen the warps of a rug wound around the warp-bar in order to accommodate their extra length; unfortunately he gives no further details. Reichard discusses and illustrates a loom on which the warp is wound carefully around the upper bar which is, in turn, lashed to the tension bar and fixed to the upper anchor beam in the usual manner. The warp could be unwound as needed, with the excess woven fabric sewed down to the loom beam cords. Reichard states that this method of winding the warp and sewing the fabric down is the "most common" arrangement (1936:66, Plate IV.a). Today, however, the technique has been replaced almost completely by the wrapped and extended warps of the adjustable-beam looms.

An unusual loom referred to earlier in this section is the welded metal loom, with revolving warp beams and ratchets to maintain tension on the warps. Like the looms described by Reichard and Matthews, with the warps wound around the warp beam, this device has the additional feature of a revolving beam held in position by a metal ratchet, so that finer adjustments in tension are possible. Rather than sewing the excess fabric to the lower beam as was done until early in this century, the woven cloth is wrapped under the lower beam, brought up the back of the loom and fixed in place against an adjustable supplemental beam. On one such loom, at Kinlichee, metal bands (straps) rather than the traditional ropes attach the tension and upper warp bars to the supplemental beam.

Winding warp threads onto a beam with perfectly even tension is an exacting procedure that only experienced and skillful weavers can accomplish. Once wound, however, the warps are protected from soiling and from any stress that might stretch them out of shape. No other system on a Navajo loom has this advantage. Like others with adjustable beams, the system has the further advantage of allowing a weaver to see the full extent of her woven design as it grows. By no means common at present, there are only a handful of these looms in use at Kinlichee. Their distribution on the Reservation is as yet unknown.

Reichard mentions the simple alternative of enlarging the loom and raising the hogan or shed roof when weaving an extra-large rug (1936:66-7). An enormous loom for an equally large rug does allow a weaver to view her rug's design as she progresses. This is still resorted to occasionally. One weaver at Kinlichee, upon receiving an order for a very large rug, had her family build a two-story shed covered with tar-paper to accommodate and protect her gigantic loom. When the project was finished the shed was converted into a storage house and the weaver went back to her more comfortable hogan to weave "normal" sized rugs.

Combs, Battens and Other Small Tools

Like the implements for spinning, the basic forms and functions of the handtools involved in weaving have remained the same from at least the nineteenth century to the present. The weaving comb (bee 'adzooi Young and Morgan 1980:850) is a fork-like implement with tines on one end to pack the weft tightly between the

warps, an awl-like point on the other end to manipulate and position the weft before it is packed into place. Basically conservative instruments, combs are usually plain but can have a variety of modest designs carved or drawn on them. A heart, a horse or other animal, people's names, or geometric designs may decorate a weaving combs.

The batten (bee nik'i'nilt/ish Young and Morgan 1980:824) is a flat sword-like stick that is inserted into the space between alternate warps and serves to open that space through which the weft is passed (Figure 6.2 h). Battens often show considerable wear--striations along the edges where the warp threads rub every time the batten is inserted or turned.

The final stages of weaving a rug are the most painstaking and require a few specialized tools. There are smaller versions of both the comb and batten, scaled down to fit the shrinking space at the end of the warps. For passing the weft yarns between the warps there is a set of thin sticks of decreasing size (tsin ts'osi Young and Morgan 1980:1013). An umbrella rib with the end smoothed and the hole used as an eye for threading the weft into the warps is also a useful finishing tool. A variety of store-bought darning and sacking needles are also used in the final insertion of weft.

It is usually the men who whittle the combs and battens from local woods. They use a pocket knife and rasp and then smooth the wood with bits of sandstone or sandpaper. The common woods are still oak (chech'il Young and Morgan 1980:955) for battens; juniper (gad Young and Morgan 1980:927), fruitwood or other hardwood for

combs; alder (k'ish Young and Morgan 1980:816) for the slim sticks. There are, however, plenty of deviations now, just as there were when the Franciscan Fathers noted, "As a rule no especial material or wood must be used to make any particular tool or implement, and whatever is most convenient or handy is made to answer. However, there are certain kinds of trees and shrubs whose wood is preferred if it can be had." (1910:242-3).

Handcarved weaving combs, battens, spindles and sets of slim sticks are often seen for sale behind trading post counters. A number of people at Kinlichee make and sell such tools to Hubbells and to Gallup trading establishments. It is not just the tourists who buy these wares, for as one weaver says, "We used to make all our own. Now we just buy them at the store." In contrast Reichard noted that in the 1930s ". . . no Navajo would think of buying such things" (1936:52).

While certain tools can be acquired at stores, fathers, husbands, brothers and sons are still responsible for many of the tools used by weavers. Some articles have been passed from one generation to the next. A patina of age and use is evident on many well-cared for combs and battens.

Storage

During the weaving, combs, sacking needles, other small tools and yarns may be kept in any of a variety of containers at the weaver's side. These range from a traditional wedding basket to a cardboard box to a plastic laundry basket.

Battens, combs and loom sticks are kept together when a loom is not set up. One still sees well-worn elongate handwoven bags (possibly made from a folded and seamed saddle blanket) as well as cut-off pants legs tied at each end used to store these artifacts safely away. Wool and spun yarn for future projects are often kept in plastic garbage bags or cloth laundry bags, tucked into the rafters of a hogan or into the corner of a closet in a more modern-style house. A loom may simply sit idle in the corner of a room, but as often as not it may be thrown into the yard to lie on its side until the next weaving project is planned.

The Weaving Process

Warping and Set-up

Stringing a warp as the foundation for a rug is one of the most demanding tasks in weaving. The manner in which the warp is stretched can determine, or at least delimit, the quality of the final rug. There are two major concerns when making a warp for the loom: getting the warps equal in length and even in tension. Many weavers, both Navajo and bilagaana, say that a set of warps must be strung in a single day. This is not superstition but practicality: warping with equal tension is very difficult if one stops and must start up another time. The overnight stretching, and changes in the humidity and temperature and in one's mood can affect the quality of a strung warp.

Measuring and wrapping the warps in preparation for putting them on the loom is a process that has changed little among the

Navajo. Descriptions by Reichard (1934, 1936) and Anderson (1951) vary little from current practices at Kinlichee and from those reported in modern how-to books such as Bennett and Bighorse (1971) and Pendleton (1974). Navajos use a square frame, often made with two logs as side pieces and two lighter-weight cross-pieces around which the warp string is wrapped. The frame is used horizontally on the ground or floor. In contrast, a square or rectangular frame is used vertically by many Anglo weavers for stretching warps that are transferred to their floor looms. This frame has a series of pegs projecting from it, around which the warp threads are wound. This type of frame is sold at Mary Pendleton's in Sedona, but I am not familiar with the Navajo use of it anywhere on the reservation.

Handhewn wood, commercial lumber, and even steel or iron pipes may be used for the Navajo warping frame. Nails, screws, stakes in the ground, notches and wedges may serve to hold the frame together. One of the most important factors in the success of a given frame is its rigidity. If the frame's joints are loose, the pressure of the warps will pull the frame out of line and the resulting set of warps will be of unequal length.

Short warps for small rugs may be strung by a single person, but larger warp sets are more easily accomplished with two people, one sitting at each end of the frame. If a less experienced weaver is initiating the weaving, she will often ask a more expert weaver to help make the warp. The warp yarn is wound tightly into a ball and its loose end is tied in a square knot around one of the end beams. The ball of yarn is then passed across the frame and around

the opposite beam. Sometimes the ball can be rolled between the two people.

The winding of the warp between the two beams is done in a figure-8 fashion so that a "cross" of threads is formed in the center. This cross keeps the threads in proper order when removed from the frame and later forms the two weaving sheds through which the weft yarn is passed. On warps for more complex multi-harness weaves (i.e. twill and two-faced weaves) the cross is made in this same manner the extra sheds being picked out later. When a sufficient number of threads have been "warped," the thread is broken and tied around an end beam, usually in the opposite corner from where the first knot was made.

Before the warps can be transferred to the loom frame, they must be bound together with a set of cords that becomes a permanent part of the rug. Two or three wool cords, usually three ply, are twined progressively around each loop of warp yarn at the point at which it turns around the warping beam. According to at least one weaver, this twining motion is always in a "clockwise" direction. These cords twined from one corner to the other determine the spacing between adjacent warps, and, thus, affect the appearance of the final weave. They also form a line of attachment between the warps and the loom bars, and ultimately provide a firm, straight selvage edge on the finished rug. A corresponding set of cords will be interlaced along the side selvages so that the finished rug will have four completely twined selvages.

With the twined cords in place on both ends, a string is inserted around the "cross" in order to preserve both weaving sheds,

and the warps are slipped off of the warping beams. The warp ends and twined cords are then lashed to large dowels destined to become loom bars, most commonly with commercial cotton string. The bars are wired, lashed or otherwise positioned in the loom frame as shown in Figure 6.2. Even tension on the warp must be maintained at all times.

The next task is to insert a shed rod through one of the spaces (sheds) formed by the "cross" and to make string heddles with which to form a second shed. Heddles are string loops strung round every other warp and around a thin heddle stick so that when the stick is pulled towards the weaver, a set of alternate warps is raised, allowing the weaver to insert her weft into the space between warps. It is common to use cotton string for the heddles, however commercial wool and acrylic or nylon yarns are also seen. One shed rod and one heddle stick are sufficient for making plain and tapestry weaves. Twill and two-faced weaves require at least three heddles and often more. Sometimes, especially with multi-heddles, the heddle strings are color-keyed to identify the different sheds. The strings may also be parti-colored to mark the central warp or some other division to aid the weaver with her design.

The last detail before the actual weaving begins is to arrange the side cords for twined side selvages. Unlike the end cords that are already in place and completed, the side cords are integrated into the rug as the weaving progresses. These cords may be identical to the end cords or may differ in color according to

the weaver's preferences. They are attached to the lower loom bar and more loosely wrapped around the upper bar. As a weft is woven into the fabric it is also inserted through the two or three selvage cords at each side. At certain intervals, usually every half-inch or so, the cords are rotated to form a braided effect along the selvage that is both strong and decorative.

Twining along the selvages can entail more than three cords and can become quite time-consuming. Multi-cord selvages are seen in the finest vegetal-dyed rugs woven at Pine Springs and Wide Ruins. Certain families tend to use a specific color and texture for their side cords and these have become an attribute that signals excellence. At Kinlichee, the cords rarely, if ever, exceed three strands and the majority of selvages are made with only two.

Some rugs, especially smaller, less elaborate ones, are made without side selvage cords. Generally the weaver feels that in these cases it is not worth her time and effort. Since a relatively large number of small rugs is woven at Kinlichee, the absence of side cords is rather common. Sometimes no special selvage preparation is used at all. In other cases, if twined cords are not used, several warps along each edge are paired, rather than used singly, to strengthen the selvages.

Traders examine the sides of a rug carefully when making an offer to buy. They generally pay lower prices for rugs without twined cords, as they are a "trademark" of Navajo workmanship and a symbol of quality.

Planning and Designing.

Planning a good rug involves designing a rug with balanced proportions (usually rectangular) that will fit on an available loom, deciding upon the design motifs and their layout, scaling the design to the rug's overall size, and estimating the amount of warp and weft required to complete the project, including the relative amounts of each weft color. Only the latter step can be learned didactically (and even then much practice is required). The other skills are learned through direct experience as well as through the process of seeing many rugs on looms during early life. Without drawings or graphs, the best weavers have a finely tuned ability to visualize the entire design before it is woven (see section on aesthetics in this chapter). Since much of Navajo design is based on symmetry and repetition of motifs and each Navajo rug has four enclosing selvages, the weaver must plan her design to fit exactly into the space allotted. This does not mean, however, as is sometimes construed (Witherspoon 1977:161), that there is no room for modification as the weaving progresses. Reichard remarks:

We continue to study the rug from the distance of less than two yards and I ask Marie, 'Do your rugs always get just as you think they will when you start them?' Smilingly she admits, 'Hardly ever.' Her critical attitude as she stands there elicits another question. . .: 'Do you stand off from your blankets and criticize them as they grow too?' 'Always,' she says, looking somewhat surprised as if it were a matter of course. 'You see the patterns don't always get like I think, or they don't look nice as I plan them. Then I must change them. I almost always change something.' (1934:76).

Weavers at Kinlichee do the same thing today. A weaver will pause while sitting at her loom, a long silence, and then she will begin again, perhaps continuing in the same manner with assurance or

adding a new color or pattern, sometimes unraveling an area that doesn't suit her ideas and replacing it with another color or motif.

Navajo weavers do not usually resort to paper and pencil for refining their design ideas. Most of the designing takes place in the head and is translated directly onto the fabric.

Until quite recently the Navajo women wove all compositions 'out of their heads.' Most of them still do. That is, they visualize a design and carry it out. Some like Atlnaba, sure of plan and confident of skill, execute the initial conception unflinchingly. (Reichard 1936:112).

With increased literacy on the reservation, and consequently a larger number of people skilled in the use of writing and drawing materials, there are probably more frequent exceptions to the above statements than there were in the 1930s. It remains, however, that the majority of weavers, being older, are not school-trained and retain their native approach to designing. A high school graduate and beginning weaver, the daughter of a prolific weaver, draws rug designs for her mother. They talk about the relative merits of each. When the mother takes the pencil, the designs look like crude doodles and chicken scratching, a contrast to her masterful woven patterns. Similarly, another weaver's husband, a tribal employee, occasionally drafts designs for rugs woven by his wife.

Calculating the amount of required yarn is an exacting yet intuitive process for Navajo weavers. If a weaver should run short of a certain color before the rug is finished, the exact color will be very difficult to match. If the amount of yarn is overestimated the extra may be used in some smaller project, but it is preferable to judge materials more precisely rather than risk wastage. While

Anglo weavers measure and count every thread and use a known number of yards per skein and standardized weights of yarn, the Navajo uses her eye and hand. Through practice, the area of each colored pattern, background and border is estimated and translated into skeins of yarn.

Once a workable design is in mind and the yarns are at hand, a woman can proceed with her weaving.

Weaving

A weaver must visualize her design in toto, but the weaving is not accomplished instantaneously. Thus the actual weaving requires another way of looking at design:

The weaver must keep the composition of the entire rug surface in her mind, but she must see it as a huge succession of stripes only one weft strand wide. It matters not how ideal her general conception may be, if she cannot see it in terms of the narrowest stripe, meaning a row, of properly placed wefts, it will fail of execution. (Reichard 1936:86).

While the overall design is intellectualized, there are practical means of translating the weaver's ideas into fabric. Specific woven structures that are employed are described in the final section of this chapter. The discussion here will focus upon the weaving methodology and related processes rather than the finished structures.

The single characteristic sound in a weaver's camp is the even "thump thump" of her weaving comb against the loom's taut warps. A good weaver establishes a rhythm in her motions--pull the heddle or rod, make the shed, stroke the warps, insert the batten, follow with the weft, remove the batten, and beat with the comb.

The more even her rhythm and constant her beat, the more consistent is the weave in a rug. When multiple wefts are used across a tapestry weave (the most common means of patterning), one weft after another is inserted into the shed and beat into place; the sequence of passing the weft and beating it down forms its own rhythm within the on-going process. With each weft passage or change of shed, the position of the sticks and strings on the loom are checked. At regular intervals, the side cords are reversed as the weft is passed between them.

Symmetry and, therefore, a means of measuring the motifs' relationships to one another and to one's progress are important. Because the warps are evenly spaced, counting them to establish weft placement (where motifs begin and end) is a primary means to achieve regularity. Hand widths and other body lengths are the traditional means of measuring (Reichard 1934:11) and continue in use today. With increasingly high standards placed on weavers by traders and collectors, however, rough measurements are often inadequate. It is common today to see a tape measure draped over the top of a loom and a ruler included in a weaver's work basket. While the bilagaana measures the fineness of a rug in terms of wefts per inch, weavers have not yet adopted this thread count system, instead relying on their eyes and fingers to gauge the fineness of a textile.

The use of lazy lines (barely visible diagonal lines where neighboring wefts of a single color are woven separately) allows a weaver to segment her design and to concentrate on small portions of it at one time (see section on woven structures in this chapter for

a detailed description of lazy lines). Thus, a weaver does not have to weave straight across her rug as Reichard (1936:86) describes. She may build up one design area for a small distance and then go back and fill in adjacent areas. It is apparent from watching a number of weavers that each handles this segmenting individually--where one chooses to divide a design because of a need to focus on a particularly difficult motif is not necessarily the same place that another weaver would break the pattern. Weaving in blocks is apparently much less tiring, more entertaining in a sense, than weaving straight across. Both physically and psychologically, "it makes the weaving go faster."

More than one weaver may work on a rug, at a single time or in succession. At Kinlichee it is not uncommon to find the sister, daughter, aunt or other clan relative sitting beside one of the better weavers, helping to finish a large rug. The lazy line, here again, allows two weavers (or more, although this is rare) to work on different horizontal segments of a rug. On one particular day two sisters, both excellent weavers, were working on a fine and large rug at the hogan belonging to one of them. The day before, an older lady, not a relative, had come to visit and while sitting in the hogan, she asked if she might work on the rug. The main weaver consented although the visitor's eyesight was not good. The two sisters worked to unravel a portion of her contribution to the rug the next day and could point out an area that should have been, but was not, removed. Several weeks later, when the rug was nearing completion, the main weaver's adult daughter, a new but already

proficient weaver, helped to finish the rug. Newcomb (1964:103) mentions three weavers, including Hosteen Klah, working on the same rug.

In the 1940s Anderson noted ". . . working together in a common project is not unusual among weavers" (1951:85). For large commissions at Hubbells Trading Post, the practice is to have two weavers working side by side on any large rug. One weaver is generally "in charge" of the design. This is often how a newly hired weaver at the Visitor's Center is trained in Hubbells' standards and techniques. A number of two-weaver rugs have been entered and have won prizes at the Gallup Intertribal Ceremonial and at the Museum of Northern Arizona's annual Navajo Show. Both weavers are credited for their contribution to the rug, and the prize money is usually split between them. If the weavers are experienced the work is amazingly consistent, as though a single weaver had executed it.

As the rug grows, the weaving area becomes higher on the loom. A weaver is usually seated before her loom and needs to adjust her seat as she progresses. Reichard was given a small box with three different dimensions so that she could turn it to three different heights (1934:30-1). Weavers at Kinlichee sit on sheep skins, Navajo and commercially woven throw rugs, Pendleton and other commercial blankets, bed pillows, logs, cinder blocks, wooden crates, metal milk crates padded with pillows, wooden or metal kitchen chairs, aluminum lawn chairs, and a variety of other suitable seats. One loom in particular has a built-in wooden seat,

similar to that attached to some Spanish floor looms. When the weaving area is too high to reach, the warp must be lowered and fixed in place at a more manageable level. The various devices now adapted to this purpose are discussed in the section of this chapter that deals with looms and weaving tools.

There is a variety of problems that plague weavers and, consequently, a myriad of solutions. Before much has been woven the warps tend to be fuzzy and to stick together. This problem goes away as the weaving progresses. In addition, however, the weaver strokes or strums the warps with her fingers or end of the batten and this helps separate the warps before inserting the batten. The same motions are used today as in the 1930s:

I at first think this flipping an unnecessary, possibly an aesthetic, gesture like the elaborate motions of a bootblack's flannel. But when I take up the weaving position myself I find it serves a very useful purpose. . . . there are wool fibers, so small as not to be easily discernible, which catch one another and present the sheds from being completely thrown. The swift light flip of the fingers separates such of these fibers on the forward warps as adhere and to those behind. Constant friction of fingers, batten, comb and yarn wears off these fibers so that as the weaving proceeds to the middle of the loom length, they are gone leaving a smooth tight warp. (Reichard 1934:17-18).

Occasionally a warp will break (this occurs frequently if the warp yarn was not well-spun to begin with). The method of repair depends largely upon where the break occurs. If the warp is wool and can be stretched, a weaver may try to tie a square knot with the two ends. If the ends do not meet, an extra length of warp yarn can be introduced with two knots being tied. If the warp has broken off at the weaving line, a new length of warp can be inserted into the fabric with a sacking needle, run alongside of the old warp

and extended beyond it, and tied to the broken upper end. The lower end of the new warp is sometimes tied behind the rug on the lower loom beam and is always darned into the fabric of the finished rug.

The biggest challenge for beginning weavers is to keep the side selvages even. Side selvages tend to pull in as the weaving progresses if a weaver is not super-cautious about the tension of her weft. In order to allow for take-up in the weft as it interlaces between the warps, a weaver must arc the weft when positioning it and before beating it into place. A single large curve or a series of small arcs should provide enough slack so that edges do not pull in. A number of Kinlichee weavers attach cords to their side selvages and to the loom's side supports in order to further ensure against uneven selvages (cf. Pendleton 1974:79, figure N73). This is done particularly with two-faced twill rugs that have a heavy, complex weave that tends to pull. Reichard mentions this technique as a last resort to straighten a beginner's rug (1934:22).

Uneven tension on warps is another ailment with which a weaver often contends. Warps may not have been strung evenly to begin with or may stretch out differentially. Wefts will not pack smoothly into an uneven warp and the resulting rug will appear crooked and will not lie flat. Weavers may insert a series of thin wooden or cardboard slats or rag strips into the looser warps, attempting to take up some of the slack. If very loose, warps may be cut and knotted to shorten them. Another solution for uneven warps is to wet the shorter, tighter warps and insert a batten between them overnight to stretch them out.

On rare occasions a meticulous weaver might want to replace a small area in a rug already woven. In at least one instance at Kinlichee a weaver discovered that she had woven the wrong weft color into a certain motif and that it marred the rug's appearance. While the rug was still on the loom but past the point of simply unraveling the mistake, she carefully removed the wrong color by picking out the yarn with her sacking needle. She then inserted the correct weft color into the area, threaded through her needle which enabled her to interlock each pass of weft with the already present background wefts.

Finishing a Rug

The last few inches of any rug are the most painstaking. Because the four-selvage system is closed, the last wefts must be inserted carefully in the narrowing space that remains. Most weavers have a set of varied thin sticks and reeds with which to make a shed and insert the weft in the last several inches. With only a few inches unwoven, the heddles and shed rod must be removed and the last part picked out by hand. The use of an umbrella rib with the weft yarn threaded through its eye is common. A sacking needle is also used for interlacing the final wefts.

Many early dresses and blankets were woven halfway and then turned upside down in the loom frame. The second half was woven towards the middle and the finish occurred near the middle of the textile (the loom turn, as this technique is called is further discussed in a later section of this chapter). Today, this is rarely noticeable on completed rugs, although some are woven in a

similar though slightly modified manner. These modern rugs have had a small portion woven on one end, perhaps an inch or so, and then are turned and finished from the other end. This gives the weaver a little more flexibility than having to insert her final wefts directly against the end selvage cord. In fact, on rugs that have not been turned around in the loom, the weaver will commonly insert some wefts at the top of the warps and pack them upward against the selvage cord before completing the main portion of the rug. Matthews described this same technique (1884:381).

The weaver must attempt to pack in as many wefts as she can at the end or the result will be a thin fabric with warps showing through. Some weavers, especially those making rugs of lesser quality, weave pairs of wefts into the last inch or so, or they interlace wefts across paired warps. Traders frown on this time-saving, cheapening technique. Weavers will comment on this sign of laziness in displayed rugs.

New weavers will sometimes have an expert weaver finish a rug. On the other hand, elderly weavers may have to rely on a younger person with keener eyesight and stronger hands for the final insertion and packing of wefts. Additionally, a number of conflicting beliefs come into play. Different weavers voice varying opinions: "You must always finish your own work" versus "It is not good to finish a rug all by yourself; you should get help to do the finishing; don't concentrate your energies so much."

When the rug is completed, the binding cords are cut from the loom bars and the rug is removed. The selvage cords are tied

into tassels and trimmed. A variety of different tassels appear on Navajo blankets and rugs--simple loops knotted together; "button-loop" tassels in which the selvage cords have been doubled and tripled and re-worked into the corners; augmented tassels in which additional yarn is added to make a fat, pompom-like tassel; braided cords tied off at their ends. The most common corner finish is with the cords simply tied or looped together. Most women at Kinlichee employ this technique. Button-loop tassels have disappeared almost completely in modern rugs although they were once quite common. Augmented tassels are made on fancy saddle blankets when a weaver wants the corners to show from underneath the saddle. Braided tassels are reserved for especially well-woven rugs and are not often seen in this area.

One middle-aged weaver claimed (in partial jest) that her mother told her that big corner tassels should always be used on rugs because white people always have dogs and cats that like to chew on rugs. This way the animals destroy the tassel and not the real rug. She added that the tassel gives one something to do with the selvage cords left over from weaving and they do, in fact, strengthen the rug's edges.

The entire rug is examined for loose ends. Wefts ends are cut off with scissors or a knife. Warp ends are usually threaded into a sacking needle and darned into the fabric. Through the time that a rug has been on the loom much dust and lint are collected on its surface. Many weavers lay their rugs out flat and brush them firmly. This serves to remove the surface soil and also gives the

rug a more even appearance. Depending upon the type of wool used, the brushed nap may be long and fuzzy or quite short and firm. The nap may be evened off with a pair of shears or scissors if it is too shaggy. Very shaggy brushed rugs are considered suspect by traders because the nap may hide flaws in their designs.

The old way to finish a Navajo textile was to take the new blanket or rug and bury it in damp sand overnight (Reichard 1934:31; Anderson 1951:30-31). This tended to shrink the fibers and yarns a bit and made a tighter, more compact and regular fabric. It was also "supposed to have a cleansing effect on the wool" (Anderson 1951:31). Weavers at Kinlichee no longer continue this practice. Most women simply brush their rugs well and consider their job done. One family, however, says they take their rugs to a dry cleaner in Gallup before offering them for sale. In another part of the reservation, a weaver was observed ironing an unruly rug with damp press cloths from old flour sacking and flatirons heated on her woodstove.

Timing

Seasonal changes have always affected weaving production:

Traders long ago noticed that most of their rug purchases are made in the spring because most weaving is done during the long idle days of winter. When lambing and shearing time, harvesting time come, weaving virtually halts. During the summer it lags (Anderson 1934:235).

Modern traders concur--their heavy buying season has always been the winter (personal communications, Wheeler, French, J. Young, January 1982). At least one trader has always taken out a loan each fall in order to have cash available to weavers during the winter. Because weavers rarely, if ever, save up their rugs for later sale, selling

them almost as soon as they have come off the loom instead, this buying pattern reflects the weaving schedule.

Unfortunately, Reichard's otherwise superlative work in the 1930s reflects only summer data and she does not concern herself with seasonal differences. She speaks of active weavers during the summers, of course, but no comparative information for other seasons is supplied. One has to surmise from comments and descriptions of the large number of other activities that occur during the summer that weaving had a great deal of competition from such seasonal activities and might have progressed more steadily during the quieter winter time. Noel Bennett recalls that during her stay at Tuba City from 1968 to 1971 winter was the most active weaving time. During the summer and even in the spring and fall, there were too many competing activities such as shearing, lambing, farming, summer "squaw dances", and trips for weaving to progress on a predictable schedule. A woman might stop and start a dozen times during the summer, while in winter she could work almost without interruption. Bennett noted that there were weavers year-round, indeed, but they just didn't get as much done when they had summer chores to accomplish too (personal communication, October 1982).

In contrast, Adams (1963:142, chart A) reports that in 1954-1956 in the area of Shonto in the western reservation, weaving was "moderate" from January to May, "heavy" from May through September, and "light" from October through December. He states, "Of all productive activities, weaving shows the most pronounced increase during the summer months" (1963:143).

Most of the fieldwork for the present study also took place during the summers, with only sporadic checks in the winter, so it is not possible to gauge specific seasonal differences at Kinlichee. An entire study could focus upon seasonality and weaving schedules. From the Kinlichee summer data, it is clear that weaving does not "virtually halt" (Amsden 1924:235) by any stretch of the imagination. It is interesting to speculate that with decreased dependence upon herds and farming, the Navajo are less and less governed by the seasons; improved roads and transportation have changed formerly isolated winter weather into a mere inconvenience that people put up with as they carry on many of their normal year-round activities; nine-month school schedules often have more impact on a family's year-round planning than the herd or the farming. It may be hypothesized that Navajo weavers are weaving year-round more consistently than they did formerly, because of acculturation and modern buffers between people and the natural environment. While not within the scope of the present project, this hypothesis could be tested by year-round recording of weavers' productivity and sale records from trading posts.

Finally, a note on weavers' expressions of seasonality. Many weavers will describe themselves as weaving "all the time," and neighbors will say of a good weaver, "She weaves all the time." At Kinlichee, "all the time" is interpreted as a succession of rugs put on the loom and woven off at the weaver's own pace with few periods when the loom is completely empty. In other words, it refers more to the fact that the loom is almost always with rug than that the

person is constantly interlacing warps and wefts into a rug; there are times when a "constant" weaver will have the same rug on the loom with little visible progress for months at a stretch.

In the summer, there is no standardized time during the day when weavers tend to weave more than any other. This is dependent upon an individual's particular schedule and her family needs. With only a few exceptions, weaving is accomplished exclusively in a person's "spare time," after other chores and projects are finished.

Many weavers will begin setting up a loom and making a warp in the morning or early afternoon, when there will be few interruptions and the entire project will be completed before evening. Warps tend to stretch out if left on the warping frame for a long period of time and thus it is difficult to match the tension when one returns to the project after a lengthy break. Because setting up is a crucial project, someone will often be asked to babysit small children that would normally spend their time around the weaver at her loom. Animals are chased out of the weaving area.

Most people avoid weaving at night if possible because colors do not appear as distinctly as in daylight. Many mistakes in coloration due to changes in dye lots may be blamed on weaving with inadequate light. Not having electricity, most families at Kinlichee use Coleman lanterns or similar lamps after dark, which further distorts or obscures the colored yarns and patterns. A few of the very best weavers who have electricity at their homes will say that they weave through the night occasionally. Several talk about the late nights as though proof of their excellence and dedication. In some families a woman is warned against weaving too much

and advised that she should use moderation in all things including her weaving habits. Women who weave at night often acknowledge that one should not work excessively according to Navajo traditional but, beliefs having no proof that their exhaustive weaving has done them harm, they continue to pursue the higher gains accrued through full-time weaving.

The speed with which a rug can be woven always receives much attention from collectors and others curious about the weaving process. A wide range of weaving rates is evident at Kinlichee, from several days for small pieces to several months or more than a year for a very large and fine rug. The time in which a rug is woven depends upon many factors: the experience of the weaver, her health, her responsibilities to the family and to the outside world, the quality of the rug itself, the efficiency of the particular loom involved, even weather conditions and time of year. All of these factors change considerably during the course of a single weaver's lifetime and, of course, they vary significantly between different weavers.

A number of calculations for weaving time have already been made by traders. They are presented here as background information and points of comparison for the Kinlichee data. A colleague of Gilbert Maxwell recorded figures for two types of weaving:

A dealer friend of mine once placed an expert Navajo weaver on his payroll at \$1 an hour. For her he bought handspun vegetal dye yarns. He told the woman to do two pieces of weaving: a better than average, twill weave, double saddle blanket (30 x 60 inches), and a 3 x 5 foot quality rug. The saddle blanket was completed in 140 hours, the rug in 238 hours! And this, I would remind you was straight weaving time--not spare time.

If this weaver had shorn, washed, carded, spun and dyed her own wool, my friend conservatively estimates that it would have taken another 200 hours. (Maxwell 1963:19-20).

John Rieffer of Wide Ruins Trading Post tabulated the total time from shearing to finished rug for a vegetal dyed 3' x 5' rug in 1973, and Marsha Gallagher documented a similar project in 1981. Their results are reproduced in Table 6.1. Optimistically, Anderson (1951:83) states that if a good weaver were to "apply" herself, she could make a "consistently good rug about 3½' x 5½' every week," but most weavers finish an average rug in about a month's time. Bill Young, former trader at Hubbell Trading Post, estimates that a good weaver could produce about one woven square foot in a standard eight hour workday (personal communication, August 1980). Bennett and Bighorse (1971:4) cite an accomplished weaver finishing a tiny rug, 10" x 23" (1.6 square feet), in a single day. All of these estimates variably take into account the preliminary preparation of wool, yarn and loom, and therefore, of necessity, are rough estimates.

For early American cloth production in New England, to keep one weaver continuously occupied on a floor loom with treadles and a hand-shuttle, it took twelve spinners if carding their own wool, or five if using pre-carded wool, to supply the weaver with the necessary yarn (Rawson 1936:104). Navajo weaving on an upright (vertical) loom is a slower process than floor loom (horizontal) weaving, and so the ratio of spinning to weaving time might be modified. Nevertheless, it is clear that carding and spinning are major time-consumers; once they are accomplished for a given project, at least half of the work is finished.

TABLE 6.1
TIME-COST ANALYSIS FOR WEAVING A NAVAJO RUG^a

<u>Activity: Hours</u>	<u>Rug #1^b</u>	<u>Rug #2^c</u>
Shearing (two sheep)	2	15
Cleaning	10	
Carding	40	368
Spinning	90	
Washing	8	19
Native plant gathering (five colors)	4	
Dyeing	40	
Loom construction	16	158
Warping the loom	18	
Weaving	160	
TOTAL HOURS	388	560
Probable sale price	\$500.00	\$700.00
Average amount earned per hour	\$ 1.30	\$ 1.25

^aExamples based upon two 3' x 5' vegetal-dyed rugs of high quality.

^bFrom H.L. James 1976:29, with the assistance of John Reiffer, Wide Ruins Trading Post, August 1973.

^cfrom Gallagher 1981:27 and the records of the Museum of Northern Arizona, Flagstaff (specimen number E8473).

Woven Structures

The Navajo employ a limited number of relatively simple woven structures.⁴ With ingenuity and creativity they demonstrate many of the technical variations that are possible with these structures. The repertoire includes weft-faced plain weaves, tapestry weaves, twill weaves, two-faced tapestry weaves, a tufted weave, and a warp-faced warp-float patterned weave. Judging from an analysis of textiles in various museum collections, a nearly complete array of basic techniques has persisted from the nineteenth century to the present, with some variations becoming more elaborate and a few dying out altogether. In the following section, each of the basic weaves and their elaborations will be discussed in turn.

Weft-faced plain weave. The simplest form of weaving is an over-under interlacement of the warps and wefts, a plain weave. Navajo rugs are made of plain weave in which the wefts completely hide the warps, a variation known as weft-faced plain weave (Emery 1966:76, Figure 87). In addition to making weft stripes of various solid colors, the Navajo have developed certain patterning techniques with this inherently simple weave. If single weft shots of the two different colors are alternated, several different effects can be produced. Collectively known as "beading", the colors can appear in vertical pin-stripes, in narrow horizontal lines, or as speckled areas. All of these variations are known in eighteenth century wearing blankets from Massacre Cave and are still used in rugs today.

Lazy-lines. A diagonal break, a faint line, in a solid colored area is very often seen in Navajo blankets and rugs. The wefts do not continue across the textile from edge to edge but, rather, have been woven in segments with diagonal joins between them (Emery 1966:83; Pendleton 1974:83-85). This facilitates weaving a large rug across which a woman would not be able to reach. It also allows a weaver to concentrate on a particular design area without having concern for adjacent areas. Additionally, there is some evidence in pictorial and sandpainting tapestries that lazy lines are used to break up the even texture of an otherwise plain-colored background (Wheat, personal communication, 1973).

While not a "weave" per se, lazy lines are a structural feature of Navajo weaving that has been used since the nineteenth century and is currently undergoing change and potential replacement. In early publications the lazy line is the only recorded means of sectioning the width of a textile without creating an obvious vertical slit in the fabric. Anderson (1951:43) noted that such lines were common in the work of women at Ganado and Kinlichee in the 1940s. Curiously, Reichard (1936:90) mentions lazy lines (without using this name) only in passing, as though of little consequence. The Franciscan Fathers (1910) do not include any reference to them at all. Lazy lines are visible in a wide range of Navajo textiles--from nineteenth century blankets to modern rugs.

Some traders, especially in the past but continuing to the present, show a dislike for lazy lines, viewing them as flaws and signs of laziness. In the 1960s when the problem of Mexican rugs

that imitated Navajo designs (but not techniques) was prevalent, traders began to point proudly to the lazy lines as proof of authenticity and, additionally, something upon which to base yet another story about Navajo weaving.

While Anderson suggests that lazy line is a Navajo term, "a descriptive term from a descriptive language" (1951:43), I have found no evidence of a native name for the feature. The women at Kinlichee could neither identify what a "lazy line" was, nor provide either a native or English term for the diagonal join showing on many of their rugs.

Although the lazy line is used as a diagnostic trait of Navajo weaving when present, it is not always apparent in every rug or blanket. For instance, lazy lines are conspicuously missing in wide twill rugs as Amsden (1934:54, 7n) notes. Amsden, however, assumed that these wide rugs were therefore woven edge to edge. Doubt is cast on his assumption by a photograph taken of Lottie Thompson at Thoreau, New Mexico, in the late 1940s (Navajo Tribal Museum) and published in 1951 on the cover of an information pamphlet by the Indian Arts and Crafts Board.

In the photograph a very wide herringbone twill rug is in progress; in the area being woven, the wefts form a diagonal segment near the rug's center, with a series of long loops hanging down from the woven edge. The weaver was apparently using a system that is currently used by a number of the most proficient weavers at Kinlichee, notably those who work at Hubbell Trading Post.

The broken weft technique, as it will be called here, is described by Pendleton (1974:85) but does not appear in previous literature. A succession of weft loops is stepped diagonally at or near the center of a rug in progress. After a woven section with this diagonal edge has been built up for several inches (no more than eight or ten for convenience's sake), the weaver moves over to the unwoven area. The first weft loop is broken and the lowest broken end is woven into the warps as far as it will go. Then an entirely new weft is added, overlapping the broken weft and continuing to the selvage. The shed is changed, the second broken weft (from the first loop) is interlaced as far as it will go. Then the recently added weft is brought from the selvage into the warps and broken off at a length to overlap with the second weft already in place (Pendleton 1974: Figures N87-N88). This continues until all of the loops have been interlaced and connected with each other by new segments of weft. As the broken joins are staggered as much as possible across the fabric (i.e. the loops are broken off at different points so their lengths differ and the overlapping with new wefts occurs at different places) the technique is not nearly as visible as lazy lines.

The use of this technique is not restricted to twill rugs, but is frequently seen on large tapestry weave rugs in progress at Hubbell's. When finished, the joins are completely invisible and apparently quite strong. Pendleton observed the technique in use at Chinle (Pendleton, personal communication, March 1982). With the advantages of efficiency plus invisibility, the technique could

eventually replace lazy lines. At present only the best weavers of Kinlichee have adopted it.

Tapestry weaves. Emery (1966:78) defines tapestry weave as a weft-faced plain weave in which "mosaic-like patterns of solid color areas" are produced by discontinuous wefts (i.e. wefts that do not pass from selvage to selvage of the woven fabric). Most of the patterns in Navajo rugs are created by this technique. There are a variety of ways in which laterally adjacent areas of color are connected in order to form a cohesive and coherent fabric.

"According to the nature of the connection, or lack of connection, between areas, tapestry weave is called slit, dovetailed (or toothed) or interlocked" (Emery 1966:79). Most of the patterns in Navajo rugs are created in tapestry weaves; all three sorts of weft junctures have been used and adapted by the Navajo, so each will be discussed in turn in the following section. More than one type of join may be used in a single rug and, at least in a number of cases, a single weaver may employ different joins according to the type of design she has chosen to weave.

Slit tapestry weave (Emery 1966:79). Only on rare occasions is a vertical slit woven into a Navajo textile, and even less frequently is this device used to change weft colors for patterning. In the mid-nineteenth century Navajo ponchos were woven with a central vertical slit for the neck hole. These however have not been woven since the 1880s. Occasionally a smaller slit, referred to as a "Spider Woman's hole," was woven into the body of a blanket, usually at the center but in some cases to one side or another.

Edged with careful twining just like the blanket's selvages, Spider Woman holes are usually sewn closed with a strand of yarn. Almost unknown at Kinlichee now, the intent behind the Spider Woman's hole was probably similar to that of the "weaver's pathway" or "spirit line" woven through the border at the corner of some rugs (Anderson 1951:44-46; Bennett 1974). The most recent use of this tiny escape hole is present on a Teec Nos Pos rug collected in the 1940s and now at the Arizona State Museum. The large rug has a small break (about 2 cm) at one side in its white background, formed by a vertical tapestry-woven slit. Nothing comparable is known at Kinlichee or in the area.

The alternative to a vertically woven slit in tapestry weave is a diagonal join between wefts, making a series of very small slits progressing at an angle across the rug. This variation of tapestry weave is used as frequently as the vertical slit is rare--it is one of the most common of patterning devices, often used in combination with interlocked or dovetailed joins for vertical design areas. The lazy line, discussed earlier, is a monochrome version of this technique.

Dovetailed tapestry weave (Emery 1966:80). Vertical joins between design areas have been an essential component of Navajo design since the weavers first translated their stepped and terraced basketry designs onto handwoven blankets. The joining system, in which adjacent weft areas are linked around a common warp but individual wefts remain separate from each other, is still used today. If used with heavyweight yarns, the effect produced by dovetailing

is a somewhat "toothed" or finely serrate vertical line. Dove tailing can also be employed on diagonal joins and appears to be used quite frequently in this manner by contemporary weavers.

Interlocked tapestry weave (Emery 1966:80-81). An alternative to dovetailing adjacent wefts is to actually link each weft with its adjacent neighbor as they turn back into their respective design areas. This technique is used by many weavers today.

In the traditional manner of weaving, tapestry weave joins are produced naturally, as a consequence of a series of simple movements of the weft yarns as weaving proceeds. If the weaver manipulates the weft yarns in a systematic and methodical manner, the links between adjacent wefts--no matter whether dovetailed or interlocked--are formed as a matter of course.

In recent years however a new manner of dealing with vertically interlocked or dovetailed joins has developed. So far as is known, this technique developed in Ganado at Hubbell's Trading Post; its use is still restricted to the Ganado/Kinlichee area. The weaver works on one portion of her rug at a time, similar to when lazy lines are produced. However, instead of forming a diagonal edge in the pattern where the next segment of weaving can be overlapped, a vertical line is formed, with the wefts of one color all turning around a single warp. When the weaver is ready to weave the adjacent area she inserts the new wefts with a large darning or sacking needle, forming an integral fabric just as if she had woven the rug from edge to edge, interlocking or dovetailing each area as she comes to it.

The darning needle technique is quite expeditious, a fact which may explain why Hubbell weavers who make very large, elaborately patterned reproduction rugs use the technique--it is good business. The method also avoids what some people consider "unsightly" lazy line marks in a fine textile. So far as is known, the technique developed in Ganado at Hubbell's Trading Post. Its use is still restricted to the Ganado/Kinlichee area.

Wedge weave. An intriguing variation of tapestry weave was employed in Navajo blankets and rugs for a period between 1875 and 1900 (Wheat n.d.). Whereas the warps and wefts of most textiles are interlaced perpendicularly to each other, in a wedge weave the wefts are woven diagonally across the warps, producing what Emery calls an "eccentric weave" (1966:83-84). The technique produces diagonal patterns (zigzags or diamonds) in which the wefts are built up as oblique wedges interlaced with the warps. Because of some distortion of the warps' normally parallel quality, the technique has been termed a "pulled warp" weave (Amsden 1934:51-52) and a "scalloped blanket" technique (Reichard 1936:118-120). Pepper called it "the lazy weave" (Wheat, personal communication, 1983).

Reichard notes that wedge weaves were rarely, if ever, woven in the 1930s (1936:96) and that weavers at the time of her study were scornful of the scalloped, uneven edges (1936:97, 118-9, 120). Apparently she never saw a wedge weave on a loom in the Ganado/Cornfields area. Anderson called wedge weaves "outmoded" in the 1940's. He was able to discover only one woman who claimed that she still practiced the technique (1951:54-55).

Today there are few weavers who are known to make wedge weave rugs; most are unfamiliar with the technique. A few women interpreted the zigzag designs in photographs of old wedge weave blankets as a normal weave with diagonal tapestry joins; they thought the scalloped edges were poorly woven. A single example is known from the 1930's, woven by a WPA weaver and now in the Museum of Mexico collections.

In 1970 there is an instance of a weaver in St. Michaels, to the east of Kinlichee, copying the design of a wedge weave pictured in Amsden (1934: Plate 25). The weaver, Glenmae Tsosie, was shown the illustration by Martin Link, former director of the Navajo Tribal Museum in Window Rock. When Tsosie attempted to reproduce the technique, being an expert weaver she took great pains to correct the scalloping edges of her rug. Her first wedge weave is a model of straightness despite its obliquely interlacing warps and wefts. Her second and last effort at wedge weave reproduction was made after she had examined first-hand a fine old eccentrically-woven blanket. The second rug was considerably less straight, with gracefully curving selvages (NTM # 1970-10-1 and NTM # 1973-28-2; Link, personal communication, 1979).

A second contemporary example of the wedge weave technique is represented by a rug woven in 1980, now in a private collection (Jeffrey and Carole Katz, Santa Ana, California). The vegetal-dyed rug, woven in the Crystal banded style by Marie Shirley of Crystal, New Mexico, contains zigzag bands formed by eccentrically-placed wefts. Using the wedge weave technique only in restricted bands,

the weaver avoided the distortion of warps and side selvages. The results are quite striking.

Twill weaves. In addition to the color patterning of tapestry weaves, the Navajo employ a structural means of patterning textiles through the use of twill weaving. In a twill weave, the warp and weft threads skip (or "float") over more than one thread at a time, in a diagonal alignment (Emery 1966:92). The primary structural variations of twill weaves are determined by two basic factors: "the numerical span of the floats and the direction of the diagonals" (Emery 1966:92). With regard to the float span, the Navajo principally employ "even twills" with floats that span over two and under two (notated 2/2). Four heddles (or three heddles and a shed stick) are required for the majority of Navajo twills. In terms of the direction of the diagonals, the Navajo use all three of the major variations--continuous diagonal, herringbones in both vertical and horizontal directions (yishbizh, Young and Morgan 1980:832), and diamonds ('i'iimas, 1980:468). These patterning variations are controlled by the order in which the heddles are tied around successive warps and by the sequence in which the heddles are pulled for use.

Pueblo weavers frequently employ twill weaves in their garments (Underhill 1944:56-62). The technique goes back to Anasazi weaving before 1000 A.D. (1944:57). Navajo twill weaving is very similar to that made by the Hopi today, with the major exception that modern Navajo twills are predominantly weft-faced while the Hopi twills tend to be balanced weaves in which the warps and wefts

are equally visible in the fabric. The earliest known Navajo twills resemble more the Hopi balanced weaves.

Matthews illustrates and describes the general method for making diagonal and diamond twills (1884:383-4); the technique remains the same today. The Franciscan Fathers (1910:243-245) recorded the native terms for the diagonal and diamond weaves; identical terms are used today at Kinlichee and elsewhere on the Reservation. Reichard (1936:122-26) called the twills "saddle-blanket weaves" and described them by translated terms also noted in 1910 and translated as "braided" and "diamonds". One additional term to describe an elongate version of the diamond twill figure is used today but was apparently not recorded by Reichard, Anderson or earlier scholars. This type, "standing diamonds" ('i'iimas naazini, Young and Morgan 1980:1021), is in fact found in rugs of the 1930s as illustrated by Reichard (1936: Plate X.a) and later. The English term, "double weave," used by most weavers and traders today for twill weaves is a slight misnomer (cf. Emery 1966:155, 167-8) and fortunately has not been incorporated into the literature.

The most common treatment of twilling by Navajos is to use a three-color sequence of wefts (cf. Emery 1966:94), producing an all-over pattern of outlined concentric diamonds or a series of fine adjacent diagonal lines. The technique is used for both the single and double saddle blanket, one of the few functional items still made for the Navajos' own use. In the early twentieth century twills became popular for floor rugs as well. They are also used in handbags and pillow covers. Interestingly, today diamond twills can

be seen in larger textiles used as truck seat covers, an updated versions of the saddle blanket.

While the basics for twill weaving have remained the same since the nineteenth century, one particular style has died out almost completely and several variations such as the standing diamond pattern have been further elaborated. From the 1870s until about 1900 a number of twill blankets, usually double saddle blanket size, were woven in a twill tapestry weave, which is a combination of diagonal twill interlacing with discontinuous tapestry-joined wefts, producing designs with solid color areas and a subtle diagonal texture (as opposed to the three-color sequence that lacks any solid color patterning) which is termed a "raised rib" by Wheat (personal communication, 1983). Reichard (1936:123) noted that this twill tapestry type of blanket was rare in the 1930s although had been much more common earlier. Similarly, Anderson (1951:39) notes that the Navajo weavers of the 1940s rarely made rugs with continuous diagonal twill lines. Today at Kinlichee the twill tapestry style is almost nonexistent, while the three-color twill weaves that began appearing at the turn of the century survive in greater numbers.

By altering the sequence in which the heddles are pulled, by varying the order of warps tied into the heddles, and by modifying the sequence of weft colors, recent weavers have produced an array of variations on the twill theme. A few early pieces exhibit similar innovations (for example, several small rugs at the University of Colorado Museum, collected in 1906 at Cross Canyon), but the

propensity for variation increased decidedly in the mid-twentieth century.

Today, more than one third of the weavers questioned (27 out of 72) can make diagonal and/or diamond twills in addition to their other tapestry weave rugs. Emphasis on twill weaving at Kinlichee and Ganado may possibly have shifted in recent decades. In the 1930s Reichard had to leave Ganado and go to Crownpoint in order to learn the twills (1934:210-218). In the 1940s Anderson (1951) reported that fewer weavers in the Ganado/Kinlichee area knew the techniques than those of the Klagetoh/Wide Ruins regions to the south. In the late 1950s and 1960s, however, Russ Lingruen, then manager of the Navajo Arts and Crafts Guild in Window Rock, began encouraging weavers from Kinlichee to use more multi-heddle weaves including twills (Lingruen, personal communication, 1979-1980). A variety of their products, many prize-winners in the Navajo Nation Tribal Fairs and Gallup Ceremonial Fairs, are now housed at the Navajo Tribal Museum. Whether emphasis on such weaves will continue in the future, however, is doubtful. General consensus among Kinlichee weavers is that current rug-buyers are not as pleased with twills as Lingruen once was, and that a weaver does not receive as much in payment for twill-woven rugs, often considered as "only saddle blankets."

Two-faced weave. A two-faced rug is one in which a different design appears on each of its two sides. Navajo rugs of this type are made with an over-three/under-one and over-one/under-three interlacement so that two separate sets of wefts (of different

colors for different patterns) can be woven into the same set of warps simultaneously (Emery 1966: Figures 246-249). The technique is actually very straight forward, both faces of the rug being formed from the front of the loom by alternating weft shots in a slowly progressing fashion. Despite this, the manner of weaving two-faced rugs has been misunderstood and misrepresented by many, perhaps the most common story being the conjecture about two weavers, often a mother and daughter, working on opposite sides of the loom (Asmden 1934:59).

Matthews (1900) is the first to have reported the weaving of two-faced blankets on the Navajo reservation, although surely this type of weaving was done considerably earlier. Amsden (1934:61) states that the two-faced type can be traced back to at least the 1880s. Reichard (1934:224-225; 1936:107-111) describes the practice of weaving two-faced fabric in the 1930s although Anderson (1951) does not include it in his report.

Today, a small number of weavers continue to make two-faced rugs on occasion. Those who do almost always understand twill weaving as well, although those who know twill weaves are not necessarily and automatically able to make two-faced rugs. Designs are generally quite elementary, ranging from a series of bands backed with a plain field, to relatively simple geometric figures with stripes on the reverse. There are more elaborate exceptions--in 1981 a young Kinlichee woman wove a striking yei design into one side of a very large two-faced rug with diamond twill borders. This rug won an award at the Gallup Intertribal Ceremonial. Also, an

interesting combination of two techniques, twill and two-faced, is used in a checkerboard fashion in a number of Kinlichee rugs. Blocks of the twill weave alternate with rectangles of two-faced weave, resulting in a bold geometric pattern.

Raised outline weave. This technique is a variation of the plain tapestry weave, in which the wefts at each tapestry juncture (i.e. at each color change) are two-span floats instead of simple over-under interlacing (Pendleton 1974:85-89). The outlines of the design are thus delineated by a raised line of wefts. Usually the ground and pattern in rugs of this type are executed in two alternating colors so that the whole piece vibrates with vertical lines of "beading." The raised floats usually appear on only one face of the rug. One may distinguish between raised outlines that involve a change in both of the weft colors at once or in only one while the second color is carried across the entire width of the rug.

Aside from occasional mention in the literature, this technique is not well-studied. A brief survey of the raised outline and its weavers was made in 1977 by this researcher. The earliest known examples date to the 1920s. These include a single example collected between 1937 and 1939 by John and Clara Lee Tanner (personal communication, 1977), another in the collections at the Museum of Northern Arizona, and a third at the California academy of Science. There is a gap in the record concerning raised outlines during the early 1940s and they reappear in the 1950s, apparently under the sponsorship of Ned Hatathli, Navajo Tribal Council member from the western reservation and former president of the Navajo

Community College. Although Maxwell (1963:46-47) states that Hatathli "developed" the technique, it is more likely that he encouraged weavers to use it. At this time the technique was primarily employed in the western reservation, around Tuba City and Coal Mine Mesa, whence comes its second name, "the Coal Mine Mesa weave." Bartlett (1950: Figure 4) illustrates a Tuba City rug "with alternating colors of weft strands." Beginning in the late 1960s several traders in Blanding, Utah, decided to promote the raised outline technique and to establish it as a Utah regional rug style (Hosler, personal communication, August 1979). Since then, at least ten Utah weavers have become proficient in the technique and their rugs rival raised outlines from the western reservation. Less than half a dozen weavers at Kinlichee practice the raised outline technique. An excellent example by a Kinlichee weaver is now in the Heard Museum collection (Erickson and Cain 1976). No particular person is well-known for its use or employs it regularly. Moreover, no one was able to give a Navajo name for the weave. One woman in her mid-forties recently learned the method from an elderly aunt; she made a small sampler but has never sold a rug with the weave.

Round rugs and other shaped weaving. Circular-shaped rugs are the specialty of one Kinlichee weaver. Since 1968 she has woven round rugs in diamond twill and two-faced weaves as well as in plain tapestry weaves with Ganado designs and with vegetal dyed patterns. One of her rugs is illustrated in James (1976:92). Although James states that the style originated around 1971, there are three round rugs made in 1968 by this Kinlichee weaver that are presently in the

collections of the Arizona State Museum, the Museum of Northern Arizona and in a private collection; and three others made in the same year are in the Wheelwright Museum (Parrish, personal communication, January 1982).

While the round rugs, to some extent, resemble earlier single saddle blankets woven in a semicircular shape with diamond twill weave, there are several stories concerning its modern origins. In an interview with a newspaper reporter, the weaver explained (through the translation of her daughter):

The idea for a round rug came to me when I was a child, herding sheep. I was up in the cold mornings. I noticed a spider web, with moisture on it. I always wanted to weave a round rug. After I got married, I talked about it. I found a wagon wheel covered up in dirt. I dug it up, and started to do it." (Gallup Independent, November 9, 1981).

In more prosaic terms she told this researcher that a trader at the Navajo Arts and Crafts Guild, Russ Lingruen, suggested a wagon wheel rim to make such novelty rugs. Lingruen confirmed the story (personal communication, August 1979). The credit for their execution, however, is totally due to the weaver. She has devised a system in which her rugs are very even and flat. Several other weavers, including this Kinlichee weaver's sister, have attempted circular weaving but with much less success.

Navajo rugs in other shapes occur occasionally. Cross-shaped rugs have been illustrated in Arizona Highways (1974:44) and Elmer (1980:32); the former appears to have been made early in this century while the latter appear to be of more recent manufacture. No rugs of this particular type have been recorded at Kinlichee.

Sash belts and other band weaving. Sis is the Navajo word which most Navajos translate into English as "sash belt." Many women at Kinlichee are acquainted with weaving sash belts but few make these narrow warp-faced float-patterned bands on a regular basis. Belt-weaving was taught at the chapter house as part of the CETA-sponsored arts and crafts program, and a number of young girls report that it was also taught in their secondary school weaving programs. Because belts are made with four-ply commercial yarns and progress rapidly once the weaver understands the pattern, they are excellent beginners' projects. The traditional red, white and green sash belt is worn with traditional clothing, particularly for kinaalda (the girls' puberty rite) and for other ceremonial occasions. Thus, there is still a local need for these belts. Sis may be woven in many other colors if they are to be sold. The rack of sash belts at Hubbell Trading Post shows pinks, greens, yellows and a variety of other colors. Current retail prices generally range from \$15 to \$35.

Other narrow bands such as garters, arm bands and hair ties are traditionally handwoven by the Navajo. Although these are still occasionally produced on the reservation, no Kinlichee weaver has mentioned making any sort of band other than the sis in recent times.

NOTES--CHAPTER 6

1. After this chapter was written, the author learned that one Kinlichee weaver purchased a commercially-made drum carder in January 1983 and was making frequent use of it.
2. At the 1982 annual Navajo Show of the Museum of Northern Arizona in Flagstaff, the textile judges (including the author) created a new temporary category for rugs containing this peach-colored processed wool, as there were numerous examples submitted which could not be compared with any other rug class. It is not known whether the influence of this distinctively colored material will be longlasting or not.
3. In 1983 a number of traders began carrying processed yarn in as many as four different sizes, materials continue to change.
4. Despite claims concerning the technical proficiency of Navajo weavers by many writers and collectors, objectively it must be admitted that other peoples in the world have developed finer and far more complex weaving techniques. For example, the Peruvians before Columbus worked with supplementary and complementary warps and wefts (cf. Rowe 1977; Harcourt 1962); Indonesian and Japanese dyeing techniques are well-developed (cf. Lenor Larsen 1976); the Chinese used elaborate brocades and an intricate system of patterning (Simmons 1948). Navajo dyeing and weaving, in comparison, is technologically simple.

CHAPTER 7

CREATIVITY AND THE ROLE OF AESTHETICS

In this chapter, the range and source of rug designs and the processes of design selection are discussed. Modes of internal judgement and external influences are examined. And finally, the roles of artist and creativity in the Navajo community of Kinlichee are explored.

Native Names and Symbolism

Navajo weavers today generally classify their handwoven products at the simplest level either as "regular" (alternatively, "straight") or as "double weave." This distinction is made by the weavers in English; both types are subsumed under the Navajo diyogi-- "rug; also, shaggy, bushy, coarse blanket" (Young and Morgan 1980:340). In formal textile structure terminology, these two mutually exclusive categories correspond to plain and tapestry weaves and to twill and two-faced weaves respectively (Emery 1966). Sash belts, in a warp-faced weave that is distinct from the rug weaves, form a separate category, sis in Navajo. These categories represent differences in weaving technique and, also, radically different challenges for the designer. Double weaves are loom controlled, thus the pattern is determined by the number of heddle rods the weaver chooses to thread and the order in which she uses

them. In the tapestry weave, the weaver has more individual control over her design.

Within the double weave category there are less than half a dozen specific Navajo names for the different patterns created by the weaver (see the technical discussion in the previous chapter). For the "regular" rugs, however, there are numerous names to describe individual motifs and a few widely known design styles, especially the older ones (e.g. hanolchadi for third phase chief blanket designs, biil for the traditional style of handwoven dress). Yet for contemporary rug designs and styles, no overarching Navajo-based subclassification appears to exist.

The best record of native terminology is the Ethnologic Dictionary of the Navaho Language published by the Franciscan Fathers of St. Michaels (1910). Father Haile recorded forty-one motifs in common use at the time and their names, emphasizing the lack of symbolism or inherent meaning in such designs. "They are not designed into any kind of hieroglyphic order" (1910:250). Like much Navajo appellation, most of the names are purely descriptive: a triangle is "three points", a stepped diamond is "a large empty place or receptacle", a series of squares connected by a straight line becomes "following and touching each other" (1910:251-254). A few motifs are described by analogy: crossed lines become "star" or "pointy star", a stepped triangle is a "cloud image", and a row of v-shaped figures is "tracks". In the late 1940s Lowell Anderson found the same type of usage still in effect among the weavers he studied as he documented 69 rug motifs and some of their native

names (1951). At Kinlichee today, no further elaboration of terms has developed.

Like Father Haile, Gladys Reichard emphasized the lack of a native classification system for rug styles.

The answer to the question, 'What does it mean' is simply, 'Nothing'. The patterns the weavers use sometimes have names, although naming even is slightly developed among Navajo as compared with other craftswomen, for example, the basket weavers of northern California. Even such names as exist are singularly unpoetic. (1936:178).

A Navajo speaker is extremely adept at describing in abstract terms the location, position, form, texture and substance of an object or, more specifically, a design. In Navajo and in very few words, one may say "Those triangular elements in the corners, they should be rotated 90° so that the comb-shaped rectangular elements above them and the swastika forms below them line up directly above one another. . ." With such linguistic tools built into the language, two weavers can have elaborate conversations about a rug design without the presence of a rug or any drawings, and without resorting to specialized terms specifically constructed for rugweaving.

Certain individuals may develop idiosyncratic analogical systems for referring to or thinking about designs. These vary with the occasion and with the mood (and memory) of the weaver. I suspect that some of the names recorded by Haile and by Anderson were individual references rather than culturally ascribed terms, many possibly independently invented as descriptors rather than chosen by common agreement. The subject would be suitable for investigation by a linguist.

At Kinlichee most of the women are quite frank about not knowing names for certain designs; others are more obliging in the elaboration of a story for the sake of the interviewer's entertainment. Most of the rugs woven at Kinlichee are abstract, geometric patterns; few are yei, sandpainting or representational. This, perhaps, explains further the lack of symbolism in local products.

Despite the apparent lack of a native classification system, rug aficionados--traders, dealers, rug collectors, and museum specialists--have more than compensated, having formulated a number of classification schemes for Navajo rugs and blankets based upon time periods, materials, place of origin, function, and, most prominently, designs. Bilagaana terms for Navajo rugs are used by weavers whenever the need arises to describe a rug in such terms. For example, a Kinlichee woman eagerly told me one afternoon that she had just received an order for "one of those Two Grey Hill rugs". This is discussed further in the sections on regional styles and the range of rug styles at Kinlichee.

Design Sources

The majority of weavers report that their rug designs come from inside, from their minds, out of their heads. Some say that they dream about designs. Others say that they are always thinking about weaving, seeing rugs regardless of what they are doing; when they are ready to weave, they "think up a rug." Still others report that they sit down in front of the loom after it is set up, close their eyes and imagine the kind of rug that they want to make. A minority say that they plan as they go. Weavers from Kinlichee and

other parts of the reservation do not apparently differ; all say the same thing: "My designs come from my own head."

At times a weaver will contrast her way of keeping track of designs mentally with the bilagaana preoccupation with books, papers and pens. "I don't draw my designs on paper; I just see them in my mind and then weave them as I want to." Others can and do draw their designs on paper in order to remember them, but they are a definite minority. At least two women at Kinlichee have their husband or schoolgirl daughters draw the designs as instructed (see the previous chapter on techniques and technology). Anderson noted several weavers who drew patterns onto a smoothened patch of ground to explain a design (1951:3940). There are those who still resort to this system.

Clearly, from the recognizable identity of contemporary Navajo rugs--from their individual motifs to their overall arrangements, from color schemes to textural quality, each new rug is not made de novo. Navajo weavers have a rich cultural tradition from which to draw and many have keen perceptions of the natural and greater world around them. Reichard comments that weavers are:

. . . so versatile that it is seldom possible to determine from what source or sources they draw their inspiration. They are subjected to a great many influences, indeed, and as they are 'rug-minded' as well as 'sheep-minded', they look for suggestions on every scrap of paper. (1936:146).

And further,

If we know the exact process whereby a Navajo weaver comes by her designs, we should have the definition of inspiration. Almost any drawing has the potentiality of stimulating her with the idea for a rug, but the details of the suggestive material will rarely, except in certain tragi-comic cases, appear exactly as they occur in the

original. They will be revamped and reassembled so that, unless the weaver tells us, we should seldom anticipate the origin of her composition. Nor does she always need an external stimulus. While she was working on her last rug, suggested perhaps by the wrapper of a 'crackerjack' box, another pattern, perhaps with no discernible relationship, may have come to her. (1936:112).

It is indeed difficult to determine what goes on in the mind of a craftsperson or artist at any time, including the moment when an image is conceived. With the Navajo, suggestions may be intimately related to the weaver's life or quite impersonal; they may come from inside or outside of the Navajo culture. Certainly, in any of these cases the result is always filtered through the weaver's perspective, making rugs both valuable cultural documents and unique works of art. In the following five subsections, specific design sources will be explored.

Constraints of warp and weft. A perennial argument among textile specialists and others involved with craftwork concerns the extent to which design is affected by technique and materials. In all but one unusual nineteenth century blanket style wedge weave, Navajo textiles are fashioned from the perpendicular interlacing of sets of warp and weft yarns. (Wedges of eccentric weave, while not common, are still occasionally used in small areas). In most rugs and blankets, the warps are hidden by the wefts, thus making a weft-faced fabric (cf. Emery 1966). It is the colored weft in Navajo tapestry weaves and twill and two-faced weaves that is visible in the pattern. Thus the pattern is expressed by the horizontal interlacing of multicolored weft yarns. While tapestry weave allows more patterning leeway than many woven structures because a multitude of

colors may be used and substituted at the weaver's will, the rectilinear passage of weft still presents certain limitations. Thus, the design elements that predominate in Navajo textiles, from the nineteenth century to the present, are those naturally suited to the tapestry technique--bands, stripes, rectangles, triangles and other geometric or stylized motifs. Also, the underlying warps provide a counting aid to the weaver striving for symmetry and regularity. Other design options are possible with tapestry, but they take more effort and skill. When the relatively coarse quality of most contemporary weaving (Two Grey Hills style and a few others excepted), are compared, for instance, to the medieval mille fleurs tapestries of Europe, curved or realistically formed images are not easily drawn in a rug.

Weavers informally classify designs according to their technical ease or difficulty. Easy elements are stripes, stepped triangles, and simple figures formed with gently sloping diagonal lines; basically those which allow the weaver to concentrate on only a few color changes at once and which follow the warp/weft movements. More difficult challenges, according to the weavers themselves, are the motifs with fine outlining, finely serrate or comb-like edges, and curvilinear forms.

Family and tradition. As indicated in Chapter 5, weaving is a skill and art most often acquired through exposure to weavers in the family. Thus, the family becomes a major source for designs. Certain patterns are known as family designs, although it is difficult without sample rugs from several generations to determine to

what extent this is accurate for any given design. With evidence from three living generations for one Kinlichee family, marked similarities are apparent--the same motifs appear in the same positions in grandmother's, mother's and daughter's rugs. "This one is 'in our family,'" proudly say the women in this family. In another family, however, three sisters, each an expert weaver, show considerable differences in their weaving; their rugs are easily distinguished from each other. "That is my sister's design; I do not do it that way," or "That is my design; no one else, not even my sisters, should use it in their rugs."

Preservation of some designs goes beyond oral tradition within the family. An interesting and not uncommon mnemonic device for designs, and most commonly for multiheddle techniques, is the "sampler"--a small sample loom, often consisting only of two small beams with the warps stretched between, the heddles and stocks replaced with strings to hold the threading sequence, and small squares of woven fabric to exemplify the potential rug patterns. At least several women at Kinlichee keep such samplers stowed with their weaving supplies so they can resort to them whenever they string their loom. At least one woman has her sampler hung on the wall behind her loom--decorative and functional. A young weaver had her mother make a sampler of twill and two-faced weaves so that it would be passed on to the younger members of their family. Reichard (1936:110) and Anderson (1951:37-38) also mention the use of samplers.

There is historical basis for many of the designs and patterns used by the Navajo and transmitted to each generation

through the family. Certain motifs and styles woven today reflect earlier cultural influences. Pueblo weavers had few fancy designs in tapestry weave, however their striped and banded blanket patterns were shared with early Navajo weavers and continue in use today. Spanish and Mexican influence of the last decades of the nineteenth century brought another flavor and new motifs like the diagonal serration to Navajo weaving. Typical Navajo designs such as crosses, stepped triangles and diamonds, and plain and beaded bands, were further developed by nineteenth century blanket-weavers, drawing in particular from traditional Navajo basket designs. This artistic heritage and a sense of rhythm that has become unmistakably Navajo are retained in many of today's rugs.

Trader and consumer influences. The traders' influence on rug design should not be underestimated despite a recent decline in on-reservation trading (see Chapter 8). Traders have been the first-line consumers of rugs for almost 100 years. Beginning with Hubbell, Cotton and Moore and followed by a long series of dedicated people like them, traders have provided verbal instruction, picture books, photos and actual textiles as examples of desired improvements; they have supplied a variety of materials, some good and some not so good, but all intended to aid the weaver in her craft and thus to enhance the trader's own business as well. Moreover, traders have had the power of economics to induce changes.

While the influence of past traders lingers and is still reflected in contemporary work--for instance in the regional styles that were established in the early part of this century--active

traders today also have impact. In parts of the reservation not known for any particular style of weaving, traders in recent times have tried to shape and define the designs so that "their" weavers' products have some recognizable character. For example, in Blanding, Utah, local traders encouraged the weaving of raised outline rugs so that they became identified with that area (Hosler, personal communication, 1979-80). In areas where rug weaving is well-established, certain traders have attempted subtle changes by displaying high quality rugs with distinctive designs and big price tags. Weavers, seeing that such rugs entail large sums of money, are more likely to emulate the weavers of those examples (Lingruen and Malone, personal communication, 1979-80). Other traders are more direct in their persuasion--giving weavers pictures and photographs, making requests for specific rug types, providing advance money for rugs they prefer.

Through traders or other rug dealers, the preferences of the ultimate rug owners are filtered and transferred to the weavers. Commissions are another direct means of affecting a weaver's work. They are, of course, nothing new, since we have records of military personnel requesting rugs from weavers in the mid-nineteenth century, and Hubbell and Moore both had weavers who could make rugs to order. The differences today are the high prices, the individuality, and the variety of commissions. Wealthy collectors are often able to pay the premium price demanded by premier weavers; \$10,000 is becoming less unusual for a large and well-woven rug. A patron may specify the type of design, may indicate certain color

preferences or dislikes and, in general, may collaborate quite closely with the weaver in planning the final results. At the same time professional weavers who receive the best commissions often have command of a wide variety of techniques and designs. A single weaver may offer a buyer a choice of many styles, much as stated in one Navajo woman's business card, "All Different Kinds of Rugs, Custom Made."

Two major commissioned projects have recently affected the weavers of Kinlichee. Each is the product of an outsider's ideas of marketable rug designs and has come about after considerable interaction between the weavers and the commissioners.

The first case involves a free-lance trader who regularly visits the homes of weavers from whom he buys. He watches the progress of their rugs as he decides which client will be interested in each particular rug. In recent years he has embarked on a project in which vegetal-dyed wool in brilliant colors is obtained from weavers in the Burntwater area to the south and is supplied to weavers of Kinlichee (and several other areas on the reservation). He repeatedly shows the weavers photographs of good, typical Burntwater rugs and discusses with them the need for multiple borders and few empty spaces. Because the designs and colors are appealing in today's home decoration, and because there are only a handful of bona fide Burntwater weavers, most of whom command premium prices for their large rugs, the demand for these rugs is keen.

The project was initiated at Hubbell Trading Post, with the demonstration weavers, Sadie Curtis and Helen Kirk followed by

Evelyn Curley and Mary Lee Begay. These expert craftswomen wove the Burntwater designs with yarns they had not dyed, in patterns they had never before tried. The rugs were a success and subsequently commissions were placed with weavers working in their homes. At least four Kinlichee weavers were involved by 1981. In May 1982 a showing of these "Burntwater" rugs at a prominent Santa Fe gallery, Dewey-Kofron, brought mixed reviews from its viewers, many of whom were textile specialists in town for a southwestern textile conference (cf. advertisements in American Indian Art Magazine 7(3):86 and 8(2):8). While some called these rugs "spectacular," others considered them hybrids whose character had not yet fully developed.

The second commissioned series of projects runs a roughly parallel course to the Burntwater enterprise. In 1979 Gloria F. Ross of New York City investigated the possibility of having Navajo weavers work from maquettes designed by well-known contemporary American painters. The first commissioned pieces were also done at Hubbell's Trading Post, by weaver Mary Lee Begay. Like the Burntwater commissions, when this approach proved feasible, designs were given to weavers working in their homes. Between 1979 and the winter of 1982 six tapestries were completed, all from original designs by Kenneth Noland. One of these was done by a weaver at Kinlichee, and an additional four were woven by Mary Lee Begay whose mother has a summer home at Kinlichee. The Navajo tapestries are part of a larger series of works produced in weaving studios in Europe and the United States for Gloria F. Ross Tapestries. The Navajo-woven tapestries have been well-received in New York and

elsewhere. Two have been purchased by the Port Authority of New York and New Jersey and are hung in the World Trade Center.

The body of commissioned works grows with each season. Weavers appear to be pleased to have such assured sales. Moreover, such commissioned projects pay relatively well. The prestige which the bilagaana takes for granted and, indeed, seeks in connection with any similar project is a mixed blessing for a Navajo woman. In keeping with the cultural emphasis on everything in moderation, Navajos typically shun being singled out for credit; humility rather than pride or competitiveness is stressed. The few weavers who regularly take large commissions earn reasonable sums of money and are recognized as name weavers. They are faced with the dilemma of balancing bilagaana and Navajo ways.

Commissioned projects appear to have sparked rivalry among a few weavers. During the spring and summer of 1982 three of Kinlichee's best weavers, three sisters, appeared to have challenged each other to see who could obtain and complete the most special orders. Each sought projects with the traders and collectors she knew, and each worked on several concomitant projects. Accusations of design plagiarism and other signs of intense rivalry became apparent. By fall 1982 no resolution was in sight, with each weaver seeking larger and more elaborate designs to offer to prospective clients.

There is no doubt that a small number of weavers are well-remunerated and are receiving attention because of these commissions. It is more difficult to speculate on the ramifications of such projects--their potential influence on weavers not directly

involved but who are aware of the market for such rugs and who, on their own, might attempt to imitate the Burntwaters or Nolands. When innovative pieces were on the looms at Hubbell's, other weavers visited to examine the curious and alien designs. Many giggles were elicited by the bold New York designs. A common question concerned how much would be paid for these commissions. At present it is not known whether some women went home and attempted their own versions of these styles.

Books, photos and other media as source material. Publications with illustrated Navajo textiles, old and new, are popular on the reservation and provide yet another source of designs. A number of trading posts that are active in rug buying carry copies of Arizona Highways special textile issues (1974, 1976), James' Posts and Rugs (1976), Harmsen's Patterns and Sources of Navajo Weaving (Wheat 1977), and others with good color plates. Their customers are Navajo weavers as well as the rug collectors and tourists for whom these books were originally written. Battered copies of Arizona Highways may be seen stuck between the upper loom bars or tucked underneath the weaver's seat in many hogans. The three books mentioned above are some of the most popular because they are still in print and readily available. Another, out-of-print and sought after by a number of weavers, is Kahlenberg and Berlant's The Navajo Blanket (1972), which clearly illustrates a variety of beautiful nineteenth century wearing blankets. Published at the time an exhibit from the Los Angeles County Museum of Art traveled to the reservation, many women are familiar with its

plates. At least two women in the area have made reproductions of blankets depicted in the catalogue.

Polaroid and Instamatic cameras are common sights on the reservation. Again, they are not for the tourists alone. Rug dealers frequently keep a Polaroid handy to record the weavers with their newly finished rugs. Weavers request photos of favorite rugs from these dealers. Weavers and their families take pictures, too. One Kinlichee woman keeps a separate handbag in which she stores snapshots of her family, their vacation trips and her rugweaving.

At Hubbell Trading Post there are at least 74 watercolor drawings of rug and blanket designs, all commissioned by J.L. Hubbell at the turn of the century and executed by a number of bilagaana artists that visited Ganado from time to time. Originally intended as models for local weavers to follow in order to improve the quality of rug designs, the paintings are still exerting an influence on weaving. The women hired to demonstrate their craft at the visitor's center frequently reproduce the designs on commission. Daily, other Navajo women including those from Kinlichee may be seen entering the rug room to examine the framed paintings as well as the actual rugs for sale. Several Kinlichee women mentioned the "little drawings at Hubbell's" as sources of their inspiration, and more than one woman has inquired as to whether copies of some of them could be obtained.

A weaver rarely copies an image verbatim from a book or photograph. Pictures standardly serve as reminders of certain motifs or combinations of colors. One weaver showed me three

different rugs illustrated in Arizona Highways in order to explain where she got her ideas for a particular rug on the loom. In the end it resembled none of the three, but incorporated ideas from each. Versions of the Hubbell paintings sometimes become modified to the extent that it is difficult to identify the exact source of a design, yet that turn-of-the-century flavor of the pattern is strong enough to suggest the paintings as a source.

In 1951 Anderson asserted, "Since no rugs have duplicate designs there is always modification in two rugs which appear similar" (1951:78). Despite Anderson's and other's beliefs that Navajo weavers have a taboo against duplicating a design, there are many examples of such replications. The most common is the woman's dress (biil) which consists of two identical panels (or nearly so), sewn back to back. Many weavers seem to avoid making exact copies because it is boring to them rather than due to any explicit prescription. The weavers at Hubbell's, who make part of their living by producing copies from turn-of-the-century blanket drawings and from other maquettes, express relief when able to work from an original design, but do not appear to have anything other than personal ennui against making the copies. On occasion, duplication may be seen as stimulating rather than dull and one Kinlichee weaver proudly displays a photograph of two identical Two Grey Hills style rugs that she made. In this case, it appears that she undertook the project because of the challenge in duplicating her own design. In addition, she realized more money from the sale of the matched pair than she would have from two unrelated rugs.

Serendipity. Weavers encounter many of their design ideas by chance--off the grocery store shelves in the form of a product label, from magazine pictures that have little if anything to do with weaving, from designs in other media (Pueblo pottery, silver-work, basketry), and even from bilagaana embroidery patterns and other instructional kits originally intended for other use. One Kinlichee weaver borrowed a cross-stitched dishtowel from her daughter and replicated its design on a rug; the towel was draped over the upper loom beam and slowly a thunderbird in the same green and yellow colors appeared in the central field of her small tapestry. Another Kinlichee woman took up beadwork in her younger days and enjoyed transferring the geometric designs and pictorial images of cattle and plants to some of her rugs (Anderson 1951:75). Reichard records that her weaver friends found the seal of the Franciscan Fathers (1910: frontispiece) particularly appealing as a woven design (1936:146-147). There are times, according to a few women, that an intended design simply does not work out in woven format and may be modified during the weaving process. Unexpected designs develop in this manner too.

Selection and Judgement

While a weaver may seem to visualize her rug's appearance in total, there are certain selective processes occurring. She is filtering out many options; she is making personal and aesthetic choices; she is considering her market and the suggestions made by previous rug buyers.

As mentioned in the discussion of technical constraints on design, some weavers distinguish between difficult and easy designs. Generally, banded rugs are easier while bordered rugs with more elaborate figures are harder. But then, one must take into account the fact that most banded rugs are vegetal-dyed and that, in itself, is a difficult task for some women. Motifs with smooth diagonal sides are relatively easy, but those with sharp serrations are more difficult. Opinions of stepped motifs and those with vertical lines vary considerably. One woman may say they are hard ". . . because you have to make them real even or they don't look right," while another comments, "They're not so hard because you just count the warps and go along with them." Fine outlining around motifs is almost always considered hard, and rugs with such outlining are generally admired.

Predictably, much depends upon the designs to which a weaver is accustomed. Some weavers claim that because they have grown up in a certain area, they can only weave that region's styles. Anything else is too hard: "It's not in my mind" or "It makes my head hurt even though that trader wanted a different kind of rug." Others are versatile in the styles they can weave, but still retain preferences. One excellent weaver was working on two concurrent and very large commissions. She preferred to switch back and forth between them because one was an elaborate multiple-bordered Burnt-water style that "makes me dizzy" while the other, a simple, large-scale geometric design of only four colors, "It gives me a break; I

can think about other things when I weave this one, it lets my mind go."

There is contemporary evidence to temper Reichard's claim that "A good weaver of course never considers how much work a pattern is. She sees it as a finished whole and exerts herself to accomplish the idea" (1934:112). Although true for some weavers, many simply do not have the skill to pursue any pattern they wish. Skill and available techniques naturally restrict selection, even for the best weavers.

On the other hand, some weavers are challenged by the difficulty of a design or technique. At least one Kinlichee weaver admits to enjoying "just thinking" about all the possible combinations she can make, playing with the complicated patterns until she finds one that "I want to see if I can do." Among the supposedly unassertive Navajo (Kluckhohn and Leighton 1974:302), there are women who look for competitive challenge, although much of the direction is internal rather than a contest with other weavers. The example of three vying sisters contrasts with all expectations.

Money determines certain design choices. The above-mentioned commissions were accomplished partially because relatively large sums of money were involved; it is a moot point whether the weaver would have done them for more modest offers because of the challenge or prestige. Certain rug styles, such as Two Grey Hills, Ganado and Burntwater, are well-known outside of the reservation and command greater prices simply because of their reputations. Thus, several Kinlichee weavers have been prompted to try new designs seen

in Arizona Highways or catalogues of Navajo rugs. They believed them to be "famous designs" and therefore more lucrative. One weaver, who generally makes superlative Ganado Red rugs, wove a decidedly inferior Two Grey Hills simply because of the latter's reputation as an expensive rug.

Navajo judgements concerning weaving are rarely, if ever, harsh. Women may work hard at their weaving but there is a relaxed feeling about it; the rug will grow at an easy pace, fitting into the day's and the season's schedules. There is no reason for excessive pressure. Designs are often well thought out, but if a pattern is not balancing as it should, the weaver simply attempts to compensate for it. She does her best, and does not worry once the rug is finished. Gladys Reichard comments on this approach to life, paraphrasing the Navajo perspective on many things: "If it is worth doing, we can do it, if it is not--and our inability to do it may prove it is not--what does it matter anyway?" (1936:195).

While self-criticism is not commonplace in public, most weavers are aware of their rugs' flaws and, in a discussion on such matters, many will point them out without hesitation, explaining what is wrong and why it happened. Several weavers showed me areas of unwanted color change in rugs that had been woven at night; another pointed out where her borders did not close properly; other examples abound.

If a mistake is discovered soon after it is made, a good weaver will attempt to take it out and repair the damage. One young weaver unraveled a major six inch portion of a rug to remedy a

misplaced motif. Another showed me where, after the rug was removed from the loom, she had to extract the wrong-colored yarn from an area with a pin and scissors and replace it by darning in the correct color with a needle. It is sometimes said that the best weaver is not one who makes no errors, but the one who knows how to properly correct her mistakes.

The women at Kinlichee, and indeed all over the reservation, enjoy looking at other rugs and blankets. Whenever I arrived at a hogan with photographs of old blankets or a rug under my arm, great interest was shown. Two or more weavers together might discuss the merits of a particular design, but generally their critiques were gentle. "I would not put that cross in the corners there, but it is okay for that woman to do it that way if she wants, it is her rug." Sometimes a joke will be made about a pattern; much good-natured giggling will ensue.

Lowell Anderson found in the 1940s that "there was much tolerance for workmanship and an understanding of proficiency scales" (1951:82-82). The same holds true today. A few older women at Kinlichee continue to weave even after their eyesight has begun to fail. Their recent rugs are radically different in quality from the prize winners they produced twenty years earlier. Yet they continue proudly in their craftwork, with a place in their society; everyone expects to grow old and to "still have the pleasure of weaving." One of the differences between the situation today and thirty years ago is that many of these older weavers are among the last weavers in their families. Interestingly, younger people's

tolerance for varied degrees of skill has turned to an admiration of any weaving skill at all.

Regional Styles

From the early twentieth century to recent times, Navajo rugs have been characterized by the bilagaana with distinctive style names, associated with different regions of the reservation. Table 7.1 compares the manner in which various authors have divided these regions according to rug designs. The names Ganado, Crystal, Wide Ruins, Chinle and many others connote specific color schemes, motifs and design arrangements.

There are historical explanations for the original differentiation of styles by region. In an effort to please rug customers, enthusiastic traders often were responsible for initiating and cultivating new rug patterns. Thus, distinctive styles tended to center in areas around active trading posts and to take the name of the post or its region (see Figure 7.1). For example, J.L. Hubbell at Ganado, J.B. Moore at Crystal, Cozy McSparron at Chinle and the Lippincotts at Wide Ruins, all left their marks upon the product of weavers in their post localities. Their influence is still visible today. Traders, collectors and museums still refer to certain designs by regional names.

These styles, however, are becoming less accurate as indicators of the rugs' place of manufacture as weavers become more aware of the diversity of marketable designs. When, earlier in this century, communication between far-flung districts as well as with the outside world was limited and traders kept in close contact with

TABLE 7.1
REGIONAL WEAVING CENTERS--A COMPARISON

	Wheat (1977)	Jones (1976)	Arizona Highways (1974)	Tanner (1968)	Saati (1966)	Button (1963)	Maxwell (1963)	Kent (1961)	Maxwell (1955)
1. Shiprock	1. Shiprock	1. Shiprock	1. Pictorial (Shiprock)	1. Farmington-Shiprock	1. Shiprock	1. San Juan	1. Shiprock	1. Shiprock	1. Shiprock
2. Lukachukai	2. Lukachukai			2. Lukachukai-Grasswood		2. Round Rock	2. Lukachukai	2. Lukachukai	2. Lukachukai, Round Rock, Red Mesa, Shiprock, Grasswood
3. Teec Nos Pos	3. Teec Nos Pos	2. Teec Nos Pos		3. Teec Nos Pos	2. Teec Nos Pos	3. Teec Nos Pos	3. Teec Nos Pos	3. Teec Nos Pos	3. Teec Nos Pos and Beclabito
4. Rockpoint						4. Rockpoint	4. Red Mesa	4. Dinuhotao	4. Dinuhotao
5. Crystal	4. Crystal	3. Crystal	4. Crystal	4. Crystal	3. Crystal	5. Crystal	5. Crystal	4. Crystal	5. Crystal
6. Two Grey Hills	5. Two Grey Hills	4. Two Grey Hills	5. Two Grey Hills	5. Two Grey Hills	4. Two Grey Hills	6. Two Grey Hills	6. Two Grey Hills	5. Two Grey Hills	6. Two Grey Hills
7. Tooto						7. Tooto			
8. Burnham						8. Burnham			
9. Chinle	6. Chinle	6. Chinle		5. Chinle	5. Chinle	9. Chinle	7. Chinle	6. Chinle	7. Chinle
10. Black Mountain								8. Black Mountain/Black Mesa	8. Black Mountain/Black Mesa
11. Navilini				6. Navilini		10. Black Mountain		9. Pinon	9. Pinon
						11. Navilini		10. Navilini	10. Navilini
12. Ganado	7. Ganado	5. Ganado-Klagetoh	7. Ganado	7. Ganado	7. Ganado	12. Ganado	8. Ganado	7. Ganado	11. Ganado
13. Klagetoh (Jac. Pine Springs and Wide Ruins)				8. Klagetoh	8. Klagetoh	13. Steamboat	9. Kaasa Canyon - Pinon	8. Kaasa Canyon	12. Kaasa Canyon
14. Steamboat								13. Fort Defiance	
				8. Wide Ruins	6. Wide Ruins	14. Wide Ruins	10. Wide Ruins	9. Wide Ruins	
15. Western Reservation	9. Western Reservation	7. Storm - Western Reservation	9. Western Reservation	9. Western Reservation	15. Western Reservation	15. Western Reservation	11. Western Reservation	10. Western Reservation	14. Western Reservation
16. Kayenta				10. Kayenta	16. Kayenta	16. Kayenta	12. Coal Mine Mesa	11. Coal Mine Mesa	15. Tomales (Red Lake)
				11. Coal Mine Mesa			12. Coppermine	12. Coppermine	16. Dikona
							13. Shonto - Navajo Mountain	13. Shonto - Navajo Mountain	17. Flagstaff
17. Off-Reservation				12. Gallup	17. Gallup	17. Gallup	13. Gallup	18. Gallup	18. Gallup
18. Gallup						18. Off-Reservation (Kaash-Alamo-Ganoneito)		19. Magdalena, Datal, Quemada	

Adapted from Jones (1976:96-97).

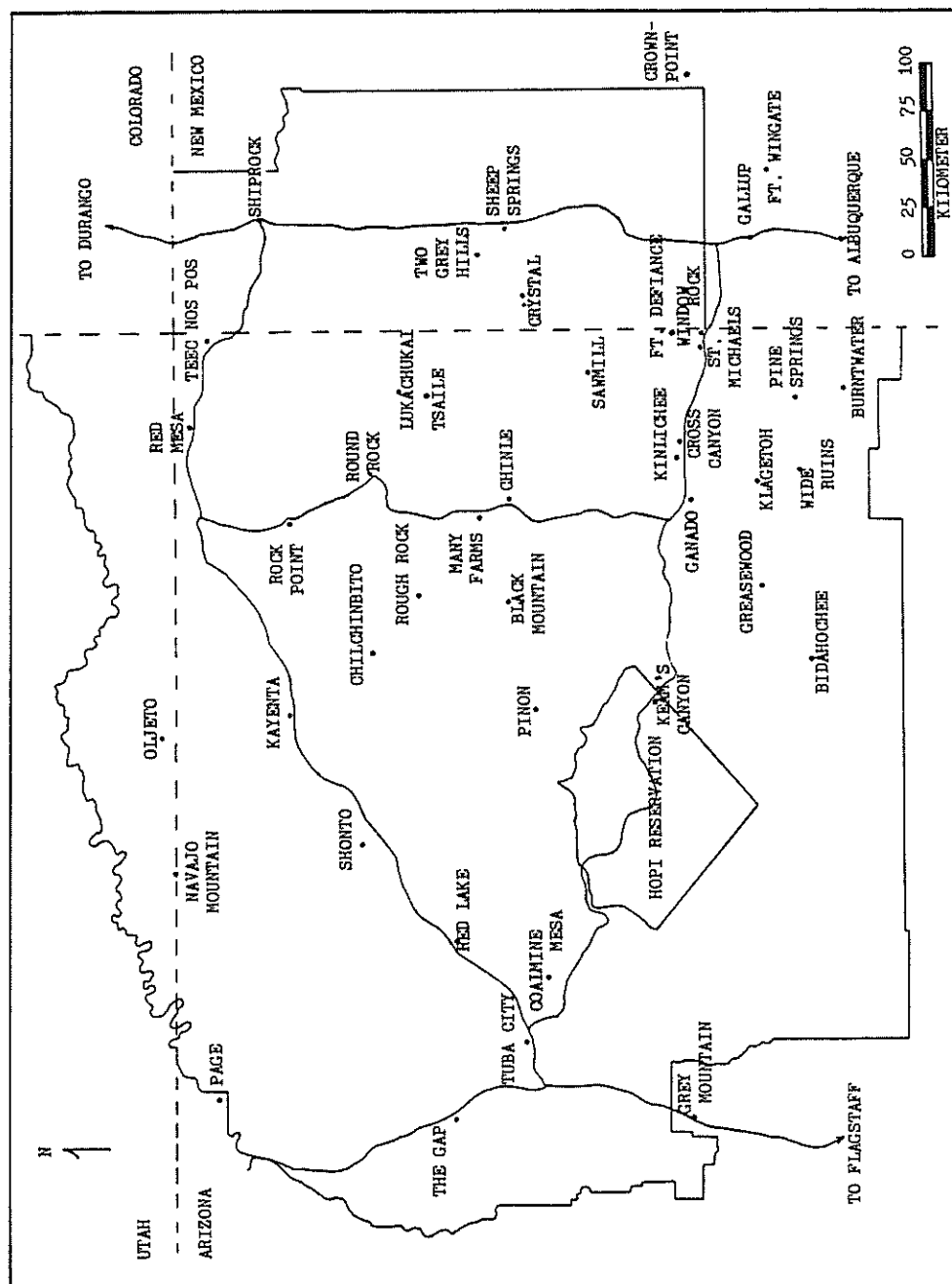


Figure 7.1 Regional Weaving Areas
Adapted from Erickson and Cain (1976:7)

"their people", weaving styles remained isolated in specific areas. Regional styles then accurately identified the weavers' homes. By the 1960s these styles were well established in the literature (for examples, see Maxwell 1963; Kent 1961; Dutton 1975; Tanner 1968). By the 1970s some of the styles had gained such consumer popularity and were so beautifully documented (cf. Arizona Highways 1974) that weavers from many parts of the reservation began making rugs in styles from outside their home area. Moreover, aware of many styles, weavers now identify and classify rugs using the regional name system developed by the bilagaana. Today, as Kinlichee actively demonstrates, the geographic aspect of rugweaving is not so narrowly circumscribed as once portrayed. In the next section we will examine the specific styles woven at Kinlichee.

Range of Styles at Kinlichee

An examination of designs at Kinlichee points up the diversity of styles produced by the community at large and by individual weavers (see Table 7.2). Kinlichee lies within the sphere of Ganado's influence. For years many residents have woven the bold red, grey, black and white patterns that Hubbell himself encouraged and bought at his Ganado trading post. Yet Kinlichee's proximity to the vegetal dye areas of Chinle, Crystal, Pine Springs and Wide Ruins has influenced weavers too--a variety of banded, softly colored vegetal dyed rug are made at Kinlichee. In recent times a number of natural-colored wool rugs in patterns of the Two Grey Hills area have been woven at Kinlichee, further breaking down regional distinctions. Moreover, the current trend of Burntwater

TABLE 7.2

RANGE OF STYLES AND PROPORTION OF WEAVERS USING EACH STYLE

TYPE: "regular"										TYPE: "double weave"																											
GENERAL STYLES:				REGIONAL STYLES:				SPECIALTY STYLES:																													
				General		Vegetal		Aniline		Regional		Ganado		Banded vegetal ^c		Burntwater		Two Grey Hills		Specialty		Yeti		Hubbell reproductions		"Double weaves"		Twills		Two-faced		Twill/two-faced		Raised outline		Innovative round rugs	
FREQUENCY:				13		5		10		26		19		9		-		-		2		-		2		8		3		3		7		-		1	
				13		11		3		14		6		4		4		2		7		2		5		14		11		7		5		1		-	
				1		-		1		6		3		-		1		2		1		1		-		5		2		-		-		2		3	
				7		3		6		5		2		2		-		1		-		-		-		4		1		-		2		1		1	
Totals				34 ^b						51										10				31										5			

continued on next page

TABLE 7.2--Continued

Source: Hedlund, field notes, Kinlichee, Arizona, 1979-1982. N = 72 (38.7 percent of the identified weaving population).

^aWeavers who make more than one style are counted for each style, at the appropriate frequency.

^bThe numbers in the first column of each block represent the total number of weavers in the following subcolumns. For example, there are thirteen weavers who weave "general" style rugs; five of them make vegetal styles and ten of them make aniline dyed styles.

^cIncludes Wide Ruins, Pine Springs, Chinle and Crystal styles.

style commissions has recently brought further changes in the area's concepts of style.

In his 1963 publication Maxwell estimated that 50 percent of the reservation production was then saddle blankets, 25 percent general rugs, and only 25 percent "specific-distinctive" (regional) rugs (1963:52). Thirteen years later, James (1976:10) judged that an approximate division might be 40 percent general rugs, 30 percent saddle blankets, 25 percent regional style rugs and 5 percent specialty rugs. At Kinlichee currently, many fewer saddle blankets are made and a special consideration needs to be made for two-faced twill and other fancy weave rugs that previously would have been categorized as saddle blankets. Table 7.3 represents an estimate of Kinlichee production types based on the number of weavers who specialize in each rug type.

Based upon the Hubbell trading post drawings and paintings, Boles has demonstrated that the predominant and most desired colors for early rugs of the Ganado area, including Kinlichee, were black, white, grey, red and blue-purple (1977:67). Rodee notes that while Ganado area weaving has retained the singular influence of J.L. Hubbell throughout this century, we find

. . . the shift in patterns from large floating and blocky oriental designs to more refined vertical motifs, and finally to centrally organized Two Gray Hills layouts. . . . a preponderance of red early in the century, less red in the 1920s and 1930s, and finally a return to more red that deepens to maroon after 1940. (1981:71).

Borders, either solid black and red or patterned with stepped or serrate basketry designs, are consistently identified with Ganado region rugs during the first half of the twentieth century and

TABLE 7.3
ESTIMATED TEXTILE PRODUCTION AT KINLICHEE

Rug Type	Percent of Total Rugs Produced
Regional styles - including Ganado, Wide Ruins, Chinle, Crystal, Two Grey Hills Burntwater, etc.....	40
General, non-regional styles.....	33
"Double weaves" - two-faced fancy weaves (formerly considered as saddle blanket weaves).....	15
Specialty rugs - including yei and sandpainting patterns, Hubbell reproductions, round rugs and other novelties.....	5
Saddle blankets - for native use and for sale.....	5
Special commissions - special orders for unusual designs and exceptional size.....	2
TOTAL.....	100

continue to the present (1981:68). Today, Ganado style rugs and generalized styles with Ganado-like aniline colors but less distinctive non-regional patterns, are the most common products of Kinlichee looms.

In his thesis of 1951 Lowell Anderson noted that some Ganado and Kinlichee weavers were working with vegetal dyed patterns, styles quite distinct from the commonly known Ganado type. Presently, approximately one-third of the weavers who make rugs in identifiable regional styles work with vegetal dyes in banded patterns known from the areas of Wide Ruins, Chinle and Crystal; the remaining two-thirds make Ganado style rugs and a few occasionally work with Two Grey Hills and other recognizable regional styles. In certain cases vegetal dye weavers appear to have strong family ties with one of the known vegetal dye areas, such as Pine Springs where at least one Kinlichee woman still maintains a summer camp. In other cases, however, the weaver has developed proficiency with vegetal colors mainly through personal interest. Those that have attempted Two Grey Hills style rugs have done so predominantly because of that style's reputation as a high priced and popular rug.

During the 1960s when the Navajo Arts and Crafts Guild (NACG) in Window Rock was a popular rug-buyer for Kinlichee weavers, the NACG trader, Russ Lingruen, and Tribal councilman Ned Hatathli encouraged a number of women to produce "double-weave" rugs. These twill and two-faced rugs were popular earlier as "saddle blanket weaves" but had never been cultivated as a refined rug type. Women at Kinlichee and women in the vicinity of Tuba City on the western

reservation were simultaneously urged to make such double weaves. Thus two geographically distinct areas have become well known for their fancy multiheddle patterns. At Kinlichee today, production is largely by the weavers of one extended family who have made two-faced/twill block weaves their family hallmark. Weavers in this family fill mail orders for their rugs from customers as far away as Chicago and Florida.

Individuals may weave several types of rugs rather than concentrating on only a single style. There are proficient Kinlichee weavers who, at one time or another have made all of the styles described above. A number of women reserve their vegetal dyeing and weaving to the summer when plants are readily available, switching to aniline dyed Ganado colors in the winter. Others prepare enough vegetal-dyed yarn during the summer to last them throughout the year; still others dry plants so that they may continue dyeing throughout the cold seasons. Women may have as many as three looms in operation at once, each with a distinct rug style. There are others who weave a variety of styles, from Ganado to vegetal-dyed to Two Grey Hills, in succession or rotation. While the majority of weavers stick rather closely to one or two rug types, the range within the entire community is quite broad.

Creativity and the Artisan

A recurring conundrum for art historians who work with tribal cultures concerns the degree of artistic freedom that exists within the context of well-defined cultural standards and values.

William Bascom writes about African art, although what he says applies directly to the Navajo situation:

The concept of tribal styles also has important implications for the understanding of creativity. The stylistic features that so clearly distinguish the arts of the Bini, the Yoruba, and the Fon, for example, can be attributed only to the creativity of artists in the past. The only possible source of divergence and specialization of art styles which have derived from a common origin lies in innovations by individual artists. Even when changes in technology or in habitat and natural resources have given rise to stylistic changes, they inevitably involve the innovations of individuals. And even when changes are the result of external influences, as in the case of diffusion or acculturation, they involve innovation and often modification by individuals within the society, and they derive from the creative efforts of other individuals outside the society. (1969:98).

In the foregoing examination of the sources and range of designs at Kinlichee, we have seen the flexibility with which weavers are able to incorporate new design ideas and still retain the cultural identity of their products. Biebuyck has noted, "Some groups have shown more receptivity and creative originality in the process of borrowing than others that were either resilient or slavish in imitating" (1969:5). The Navajo are certainly in the former category. With respect to the acculturative process in general, Vogt (1961) and Spicer (1961) have called this ability "incorporative integration"

Weavers do not form a distinct group or class within Navajo society. Just as weaving, the activity, is incorporated into the round of everyday life, not a specialty but a matter-of-course, the role of weaver is also integrated into the entire personal sphere of a woman's life. It is not singular nor segregated out for most people, although in the next chapters we shall see that this may currently be changing.

Traditional Navajo culture stresses harmony, autonomy, humility and avoidance of excesses. In weaving this is translated into a conservative approach in which individual women still find the capacity for personal expression. No great emphasis is placed by the society upon innovation or creativity among weavers. Ostensibly there is no cultural pressure to strive for new and different designs, little competition to outdo one another's work. That which exists generally derives from modern economic sanctions or from personal curiosity and challenge rather than culturally ascribed aesthetics. Indeed, the reason that Navajo rugs are readily identifiable as such is the retention of certain unspoken standards in the craft, often inculcated by consumers' values. Once again, from Bascom's writings:

Artists work within these recognizable limits, creating pieces that their customers or teachers find acceptable and they themselves find aesthetically satisfying. These limitations derive from the accepted standards of a given style, and in trying to produce something appropriate, correct, or beautiful, an artist is trying to achieve these standards in his own work. Whether he knows it or not, and even when he may be consciously striving for originality, he is, in fact, trying to conform to the stylistic and aesthetic standards that he accepts. (1969:100).

As Wingert points out, innovation and inventiveness per se are not the major criteria for assessing creativity in tribal art. The focus necessarily must be placed on the artist's "success in fusing tradition with invention and innovation" (1965:18; cited by Biebuyck 1969:23; emphasis is mine). This remains important today as it was for the home weaving industry of the nineteenth century.

Summary

The rug styles employed at Kinlichee illustrate the wide variety of sources from which women derive their designs. Recombination of earlier motifs, the borrowing of patterns from a variety of media, the incorporation of suggestions from rug buyers, and an infusion of the weavers' imaginations come together to provide rugweaving with its characteristic vitality. While the specific designs are continually being modified, it is the overall form, the general design style and the construction of Navajo rugs that allows their identification as Navajo products. It is clear from the designing process that a large number of women get pleasure from thinking about rug designs and from translating their ideas into woven patterns.

CHAPTER 8

MARKETING

Marketing, the selling of one's wares, is the final activity in the lengthy process of textile production. Patience and wit are involved on the parts of both the seller and buyer, the weaver and the trader. Where weavers choose to sell and why, how far one travels for what kind of benefits in return for one's products, and the influences on quality and design that these choices exert, are important issues considered in this chapter. The means by which a rug's price is established and the viewpoints of both buyer and seller are also discussed.

Trading Posts on the Reservation

Prior to the mid-nineteenth century, Navajo trade with other Indian peoples and with the Spanish was extensive. The exchange of Navajo goods, especially textiles, for other items took place at Indian and Spanish markets located on well-established trade routes between the Southwest, the Plains and other regions (Hill 1940; K. Bennett 1981). Records of regular trading expeditions are found in historical documents (Wheat, personal communication, 1983).

Since the beginning of the American period in the Southwest, tradings posts in Navajo country have provided a major means of commerce with the outside world. The first reservation trading post

was established in 1871. By 1890, nine were located on the reservation and thirty more in the surrounding area (Underhill 1956:182).

Speaking of the early reservation period, McNitt writes:

Indian trade in the Southwest was either a wandering pack train or a village affair until after 1868. Until that time sedentary trade centered in the towns of Santa Fe and Taos, a few Mexican settlements such as Cubero or Cebolleta, and several of the larger pueblos--as Jemez, Acoma, Zuni, and Isleta. Old trading forts to the north and northeast (such as Bent's Fort) were long since abandoned; sutler's stores of military posts which followed neither sought nor wanted Indian trade. . . . The trading post emerged when the Navahos were released to the guardianship of an agent at old Fort Defiance and regulated by troops at new Fort Wingate. . . . The first trading posts on the Navaho reservation were established at Fort Defiance soon after the agency was located there. Posts later multiplied slowly across the reservation while others increased more rapidly beyond the reservation boundaries--and beyond the reach of direct government control. (1962:70-71).

Trading posts were the locus of much activity--general store, mail-order center, post office, bank and credit union, employment agency, gathering place and community center (cf. Adams 1963). Operated most commonly by pioneering bilagaana men, the main business was the buying of sheep's wool, livestock, pinyon nuts and handcrafted items in exchange for household goods.

Flour, coffee and sugar--in that order--were the staples most in demand and therefore most in supply at the old trading posts. Tobacco, by the plug or can, was greatly desired but considered more of a luxury than were yards of bright flannel, velveteen, or calico. Canned goods--fruits and vegetables--stocked the shelves from the early eighties, but the variety was limited and not too well regarded by the Indians for twenty or thirty years more. (1962:79).

Forms of payment varied through time. "Most of the early trade was straight barter: a gun for two blankets and a horse; a pound of flour for a bag of wool" (1962:83). Borrowing from the military post system, traders introduced metal tokens or "scrip" as

currency for rations and trade items; small Navajo buttons hand-wrought from silver coins, American or Mexican, were accepted as money when removed from the shirt or blouse that they decorated (1962:82-85). Trading and the arrival of the railroad in the late nineteenth century marked the entry of the American cash economy to the reservation.

In the early days, even as today in some regions, the Navajo economy was strongly seasonal in nature. Thus, credit was an essential feature of trading. Navajos borrowed money during the winter against the wool and livestock that they would sell in the spring. Many traders kept a separate book for each account--a running tally of expenditures made by each family or each individual, to be checked against their wool earnings in the spring and the pinyon nut crop in the fall.

The use of pawn as a credit device was a characteristic practice at many reservation posts:

At any time of need, but especially in winter and summer, when they usually had no money, the Navahos could pawn their concho belts, silver bridles and bracelets, and turquoise necklaces--even their guns. In the spring and fall, when they sheared their sheep, the Indians brought in the wool clip and were able to redeem their pawn. . . . Many old trading posts had 'pawn rooms'--a frontier version of a jewelry store--a room flashing with silver and flowing with red and pink coral and turquoise ropes of beads, all tagged, the room smelling of leather and metal, the pawn dangling from hooks on the walls, all waiting to be redeemed.

At the end of six months some traders might move the unredeemed pawn out of the pawn room and hang it up in the store or place it in a glass counter and 'advertise' it for sale, for thirty days or more. If still unclaimed by the owner at the end of this time, it would be sold. (1962:56-57).

McNitt points out that by the 1930s old-style trading had been "swiftly revolutionized and obliterated" through the adoption of new trading practices prompted by the federal stock-reduction program, an improved network of reservation roads, the increasing ownership of pickup trucks and cars, and the discovery of natural gas and oil on reservation lands (1962:vii-viii). Yet, in 1943 there were 146 posts on and adjacent to the reservation (Kluckhohn and Leighton 1946:38). Trading posts, many in original stone or adobe buildings, still cover the reservation. They still supply people with groceries, sundries and mail, and still serve as a central gathering place. Reports of the 1930s, 1940s and 1950s indicate that trading post life remained isolated, adventuresome and based largely upon barter and credit just as it had earlier in the century (Reichard 1934; Hegemann 1963; Gillmor and Wetherill 1934; Hannum 1945, 1958).

Since the 1940s the rate of change has accelerated, even while certain elements of continuity in trading remain (cf. Adams 1963). Of primary interest here is the fact that the options for where Navajos may take their business have expanded. With improved roads and increased availability of vehicles, off-reservation stores can compete for trading posts' clientele. Moreover, the Navajo Tribe has begun emphasizing the need for more Navajo-owned business on the reservation and is sponsoring the construction of shopping centers in five of its designated "growth centers."

The Kinlichee community exemplifies certain changes in reservation trading practices that have occurred during the past

several decades. Two trading posts operate within the chapter, neither of which now deals with arts and crafts. A third, more prominent post is located in nearby Ganado and continues to enjoy a thriving business in rugs. While Kinlichee weavers and their families patronize these stores for their immediate needs, they also have access to a variety of other commercial establishments outside of the chapter.

Woodsprings Store, established at Kinlichee in 1962 by a Navajo couple, has never dealt with handicrafts. It is essentially a gas station, convenience store and post office. It represents the relatively new trend of Navajo ownership and pared-down, modernized services for those who generally travel off the reservation for their regular shopping.

Cross Canyon Trading Post, established about 1916, has evolved from an all-purpose post whose activities included the purchase of Navajo rugs and other crafts, to a gas station and convenience store which, because of its personalized credit system and post office capacity, retains vestiges of its former existence. The post was originally built by C.C. Manning. In the early 1920s it was bought by Elmer T. Vann, who rebuilt the store in 1931. In 1961 Vann discontinued buying rugs from local women and in 1966 he sold the business. Between 1966 and 1968 John Barr, the new owner, tried once again to buy and sell rugs, unsuccessfully. According to Barr, the best rugs from Kinlichee were sold outside the community primarily to Ganado and Gallup. The few rugs and saddle blankets that Barr did obtain were wholesaled through a Gallup broker, with

smaller lots of saddle blankets sold directly to a Montana ranch. Later, as Hubbell Trading Post was developed as a National Monument and as the roads further improved, the rug market failed completely for Cross Canyon, and business as a whole was slowed (Barr, personal communication, 1980-1982). Pawn records dating back to 1937 indicate a decline in the number of items annually pawned until, in 1966, the number of transactions was half that in 1937 (Pawn account book 1937-1970, Cross Canyon Trading Post, St. Michaels, Arizona). Pawn continued to be accepted until 1972 when tribal trade commission regulations became too cumbersome for the trader to deal with pawning in a practical manner. Today the store continues to allow credit for certain local families. The trader estimates that 95 percent of his business is on credit. Payment of debts is ensured by the receipt of social security, welfare and retirement checks rather than with silver, turquoise and other material possessions.

In addition to Woodsprings and Cross Canyon posts, Hubbell Trading Post is located a short distance from Kinlichee. It provides a rare example of a thriving old-style post, with an active Indian and tourist clientele. The National Park Service owns the trading post, maintains museum collections on the premises, and provides guided tours through the original Hubbell home and its outbuildings. The Southwestern Parks and Monuments Association operates the retail trading post and an arts and crafts salesroom. It is responsible for employing the trader and the weaving and silversmithing demonstrators. The rug business which bought approximately 2700 rugs from mid-May 1981 to mid-January 1982, averaging

ten rugs per day (Malone, personal communication, January 1982), is one of the most successful, on or off the reservation.¹ In 1980 Hubbell's records show that 62 weavers from Kinlichee sold their rugs to the post.

When Bill Young took the position as trader at Hubbell's in 1966, women in the area were encouraged to weave rugs of superior quality just as their grandmothers and great-grandmothers were urged to do at the turn of the century by Juan Lorenzo Hubbell himself. For twelve years Young bought some of the finest rugs on the reservation and was responsible for major improvements in the craft. Hubbell's reputation as one of the finest native rug stores in existence was re-established during Young's tenure as trader. In the years since Bill Young's retirement in 1978, the post has had a succession of two other traders. The second and current trader, Bill Malone, traded on the reservation for sixteen years before arriving at Hubbell's. He is married to a Navajo woman and is dedicated to continuing the old-style trading tradition. The assistant trader, significantly, is a young Navajo woman.

Despite the convenient locations of Cross Canyon Trading Post and Woodsprings Store, and despite Hubbell's old-time glamour, none of these businesses have the full stock and modern conveniences offered by larger stores in Window Rock, Chinle and Gallup. While all three posts serve as post offices, a survey of Kinlichee mailing addresses (1978 Voter Registration) shows that just over half of the residents receive mail outside of the chapter, many at rental boxes in Window Rock, St. Michaels or Ganado. Few people buy all of

their provisions at the local stores. The variety of groceries and other commodities is greater and prices are considerably lower in the larger stores outside of Kinlichee. Chapter residents recognize this and almost invariably prefer to shop at FedMart in Window Rock or at one of the numerous supermarkets in Gallup. If a family does not own a vehicle, rides with neighbors may be solicited or a family member will hitchhike into town to buy supplies. Just as people are increasingly seeking goods and services outside of Kinlichee, so weavers are taking their rugs beyond the confines of the community.

Current Marketing Options

In addition to the few remaining old-style trading posts that buy rugs directly from weavers and sell them either wholesale or retail, there are a number of new or lesser known, alternative ways in which a weaver may market her rugs. Specialized rug dealers, art galleries, free lance traders, friends and relations, and auctions are some of the sales routes discussed in the following sections.

Specialized Rug Dealers

Many old-style trading posts reserved a special storage room for their Navajo rugs and perhaps for other craft material. This room evolved into the "rug room" around the turn of the century, "when a growing market for Navaho weaving made it desirable for the trader to offer buyers or wholesalers the convenience of a separate room where they could examine his collection of rugs in privacy"

(McNitt 1962:77). Today, this showroom still exists in many reservation-area trading posts, although with dwindling supplies of rugs and increasing amounts of "modern" merchandise, such as radios, tape players, hair dryers and throw-away diapers stored alongside the rugs. In a number of successful posts, the rug room has become the focal point for business; the general merchandise has paled in comparison to the arts and crafts department. Hubbell Trading Post is an excellent example of this.

Other business people, without the precedence of trading post management, have established stores to deal specifically with rugs, silverwork and other crafts. A multitude of these Indian arts and crafts dealers, both wholesalers and retailers, exists in many of the reservation border-towns, Shiprock, Farmington, Gallup and Flagstaff and other cities around the nation.

Often rug buyers will cultivate friendships with weavers and their families and will buy regularly from certain women. One Kinlichee woman reports that she always sells to Kathy and Russell Foutz in Farmington. At least four weavers from the same family sell consistently to J.B. Tanner at Ya Ta Hey (on the road to Gallup from Window Rock), four others to Jackson Clark in Durango, and still four others at the Covered Wagon in Albuquerque.

The bulk of these rugs may be purchased directly from the Navajo, but they may also be bought from a wholesaler, either another trading post or an independent trader. Likewise, these rugs may be sold at retail prices to visitors, or wholesaled throughout the country to other stores and galleries. In one trader's judgment, Hogback Trading Company near Farmington is one of the largest

wholesalers of Navajo rugs; Garland's of Sedona is probably the largest retailer (Wheeler, personal communication, January 1982).

Tribally Sponsored Projects

The Navajo Arts and Crafts Enterprise is an example of an attempt at native marketing of native products. It was established at Window Rock in 1941 as a tribally-operated means of marketing Navajo crafts (Tanner 1968:66-67). Under the sponsorship of Tuba City councilman, Ned Hatathli, the Enterprise (or Guild as it was originally called) prospered. Branches were developed in Chinle, Kayenta, Cameron, Allentown (I-40), Navajo National Monument and Monument Valley. Weavers were occasionally hired to demonstrate in the stores. After the death of Ned Hatathli and the resignation of manager Russ Lingruen in the 1960s, the Enterprise entered troubled times. Because of inconsistent management and the vagaries of the Indian art market, only the headquarters at Window Rock has remained in operation since 1979. Although Kinlichee weavers occasionally attempt to sell their rugs at the Enterprise because it is on the way to Gallup, few accept the low offers that are made. In 1975 and 1976 a Kinlichee woman was employed to demonstrate weaving; although the enterprise continues to employ silversmithing demonstrators, no weaver has been hired since 1976.

Art Galleries

A number of businesses buy and sell Navajo rugs as individual works of art and as investment property rather than as simple home decorations and as souvenirs of a trip to the West. Some

galleries have evolved out of the old-style "rug room" concept; others have been built as urban showplaces for Indian art. Located in border towns such as Farmington and Gallup and outlying cities such as Santa Fe, Albuquerque, Scottsdale and Tucson, such galleries deal primarily with collectors rather than curio-seeking tourists. Depending upon the store's buying policies and especially the personality of the trader/manager and its location, weavers may or may not sell directly to art galleries. By and large the more urban galleries acquire their textiles from wholesalers who are located nearer to the reservation; some are, in fact, the city branch of a reservation or border town-based post where rugs are bought directly from their makers.

Independent and Itinerant Wholesalers

The traveling salesman is a common southwestern character even in prehistoric times (witness the popular interpretation of humpbacked Kokopelli figures in Anasazi pictographs and petroglyphs as an itinerant trader with backpack as well as a fertility symbol). Today there are a small number of traders to whom Arizona Highways refers as "jet age merchants" (1974:27). Whether traveling by private plane or heavy four-wheel drive vehicles, these men establish direct working relationships with both weavers and rug collectors. They also wholesale rugs to galleries and trading posts. In certain locales, as much, if not more, influence is exerted by these independent dealers as by the old-style local trading posts. They visit weavers' hogans and watch the weekly

progress of nearly every rug that they buy. Traditional traders rarely left their posts (cf. Adams 1963).

Currently one itinerant trader makes trips from southern Arizona to the reservation every six weeks or whenever a rug is nearly completed. He works regularly with at least four Kinlichee women, sporadically with others. He frequently makes suggestions for improvement of design and technique. Beginning in 1980 and continuing to the present he has commissioned certain weavers from the vegetal dye regions of Burntwater and Pine Springs/Wide Ruins to dye yarns to his specifications. He then delivers this wool yarn to expert weavers around the reservation and has them weave rugs in a distinctive "Burntwater" style. As the rugs are all vegetal-dyed and the design is visually complex, the rugs have become very popular with collectors. The style has retained the regional name of Burntwater although the weavers may come from Ganado, Two Grey Hills and other far-flung reservation districts. There is, of course, precedence for this operation. For example, J.B. Moore, the early trader at Crystal, had wool scoured and pre-dyed for his weavers (McNitt 1972:255).

Generally, independent buyers must keep in touch with "their" weavers frequently. Otherwise a rug might be finished and sold to someone else before a return trip to the reservation. Some buyers will pay particular weavers in advance for a rug still on the loom; others do not follow this policy because they believe that deposit money can easily be lost or forgotten. At times a weaver or some other family member will telephone to notify the buyer of a finished rug; postcards or a written note are also used on occasion.

Direct to the Consumer

With the large number of bilagaana employed on the reservation, there is a resident clientele for weavers. There are also some tourists bold enough to approach a weaver's hogan in search of a rug and, in turn, a few weavers bold enough to contact tourists on the streets of a border or reservation town.

The practice of direct selling is not new. In fact, it is probably one of the oldest marketing techniques, for instance in the pre-contact system of reciprocal bartering between Indians. At early Indian and Spanish trade fairs exchanges occurred directly between individuals. From the nineteenth century there are records of many blankets and early rugs bought by military personnel and their families, and by early settlers and travelers in the region.

Today, reservation school teachers, Public Health Service employees and others living on the reservation commonly become acquainted with weavers and buy directly from the source. Also, it is common to find weavers carrying a rug for sale from office to office in the Tribal and BIA buildings at Window Rock, Fort Defiance and other agency towns. On more than one occasion a Kinlichee weaver has said that she was on her way to a trader when she met a tourist on the sidewalk and, instead, sold her rug to that stranger. Indeed, it is not uncommon to be stopped outside of a trading post by a weaver with rugs for sale.

Expert weavers have more direct contact with rug consumers, usually collectors (cf. Gould 1982). Contacts are made while demonstrating at Hubbell's or other museums and galleries, or through the

initiative of a persistent collector. One weaver, after demonstrating at a museum near Santa Fe, came home with eight orders for small rugs and several special orders. Another woman weaves a large rug every few years for a doctor in the southeastern U.S.; their only contact since his initial drive over dirt roads to her hogan has been by mail. Some of these women and their families are adept at phoning customers when a rug is nearly ready, and packing and shipping it when finished; others wait to be contacted.

Friends and Relatives

On occasion a weaver will either give a rug to a relative or friend in repayment of a debt or will sell it outright to another Navajo. The recipient may turn around and re-sell the rug to a trader, gallery or other buyer. Depending upon the individuals who are involved and the character of the rug, the second seller may or may not claim that she is the weaver. When a relative or close friend lives in a city and has better chances of selling a rug for a high price, rugs are sometimes given to the city-dweller to be sold; the money is sent to the weaver unless another arrangement has been made.

A "put out" system is not known at Kinlichee, although one has developed in some areas of the reservation. One Navajo woman with some cash purchases enough yarn (usually from Shiprock or Chinle) for a rug. With this yarn she commissions a rug from a weaver, usually someone who does not have the capital to invest in wool or yarn but who has the skills to make a reasonably good rug.

When the rug is finished it is collected by the commissioner and sold as her own. (Malone, personal communication, August 1980).

Auctions

Most Navajo rug auctions are sponsored by a bilagaana trader who has acquired rugs in one of the ways discussed above. There is, however, an auction operated by weavers themselves which occurs approximately every six weeks at Crownpoint, New Mexico. The Crownpoint Rugweavers Association, comprised of women primarily from the Eastern Navajo Agency but including a few from other regions, was organized in 1963 for the purpose of gaining more control over the destiny of their rugs. At present, 90 percent of the sale price goes to the weaver and 10 percent is used for auction overhead costs, auctioneers' salaries, and dividends divided among the association's 122 members (1979 figures, MacCauley, personal communication). Attendants at the auction include many local bilagaana, employees of the BIA, Public Health Service and school systems, archaeologists working in the area, a wide range of tourists traversing the reservation, and always a few rug dealers from Albuquerque and other nearby towns.

Because there is no middleman involved and weavers set their own minimum prices, both weavers and buyers generally get reasonable prices through the auction system. However, most of the rugs brought to auction are only of fair to mediocre quality, with very few excellent rugs. A weaver stands a better chance of earning higher rates for excellent weaving if she takes it directly to a

trader who can examine the quality carefully and knowledgably. No Kinlichee weaver is currently a member of the Association.

Deciding Where to Sell

Distance used to be the major constraint on where a woman sold her rugs. It is still a consideration, but with improvements in transportation--both in vehicles and in roads--it is no longer the major determinant of who buys one's rugs. Kinlichee women are sometimes willing to travel as far as Shiprock, Farmington or even Durango or Sedona to sell a good rug. Other factors that influence a weaver's marketing decisions include family traditions and obligations, familiarity and trust with a particular trader, the type of rug being sold and, most certainly, the prices that a particular trader is known to pay. Some weavers are somewhat sentimental in their decision-making; others are considerably more profit-oriented.

It is still common to find an entire extended family selling regularly at the same store that they have frequented for years. This is a familiar pattern from the days when weavers sold largely to their community trading post and rarely had opportunities to sell outside the area (cf. Reichard 1934; Hegemann 1963; Gillmor and Wetherill 1934). Older women brought their daughters and granddaughters to meet the trader and to sell their first rugs; each subsequent rug was brought to the same trader. In the Kinlichee area, as mentioned earlier, a number of families continue their tradition of selling regularly to longstanding rug buyers at Ganado, Gallup, Durango and Albuquerque.

Navajo women tend to be somewhat intimidated by many Anglo traders--these strangers who, for many, were the first contact with the alien bilagaana world and who have controlled so much of Navajo economics for the past century (cf. Adams 1963). Once a weaver becomes acquainted with a trader and is comfortable with him, it is easier to maintain that relationship than to strike up with another stranger, even if the latter is nearer to Kinlichee or pays somewhat higher prices. Recently, a Ganado trader moved to Gallup. He reports that a number of Kinlichee weavers continue loyally to visit and do business with him at his new location (J. Young, personal communication, February 1982).

Despite the stereotype of the taciturn and gruff trader, many old-time traders became good friends of the Navajo people, some marrying into the tribe. The Hubbells at Ganado and the Lippincotts at Wide Ruins were always portrayed as very simpatico with local people; Christmas parties and gifts, many favors and kindnesses were given to "their" people (Reichard 1934; Hannum 1945, 1958).

Today, many rug buyers are personable business people who also take an interest in Navajo life. A rugweaver may choose to sell to a person with whom she gets along, perhaps because he speaks Navajo, perhaps because she likes his joking, or perhaps because he does not make jokes that embarrass her. Some rug buyers keep track of a weaver's children and relatives, asking about each one; others simply appreciate good weaving, and friendship is based upon sharing design ideas.

Weavers are aware that certain buyers fancy one kind of rug over another, either because of preferences for specific design

styles or general types of quality. One Kinlichee weaver takes her Two Grey Hills style rugs to one trader, while her Ganado Red rugs usually go to someone else. Another weaver sells her vegetal-dyed floor rugs to a Gallup dealer, but her small "in between the big projects" throw rugs are sold or traded for grocery money at a nearby trading post.

Increasingly, weavers are "shopping around" for the best price. One of Kinlichee's most competitive weavers will often go to Hubbell's, and then to Window Rock and perhaps Gallup. Then, heading north she may stop at almost every store along the Farmington/Shiprock highway before arriving in Durango, asking each trader what he will pay. Only after all this checking she will return to the place with the highest offer. Clearly, economics is determining this choice; little sentiment is involved. While the researcher was talking with a trader in the Farmington area one day, a young man came in with a rug over his arm. He laid it out in the rug room and the trader carefully examined it, offering a fair price. The fellow wrapped up the rug and told us coolly that today he was "just taking bids," that he might be back.

A number of traders offer other tangible incentives to induce a weaver to bring them her rugs. Weavers who bring good rugs to a southern Colorado rug dealer are treated with a case of pop whether or not the rug is bought. The same trader has been known to pay for the pickup's gas if the weaver came quite a distance, whether or not a rug was purchased. Some weavers consider cash

payment rather than merchandise "in trade" as added incentive to deal with a certain store.

Many traders note that indebtedness is often a disincentive and therefore prefer not to extend credit for large amounts. Once a customer has a large debt, he or she may begin to avoid that trader, even if the debt could be paid off in small amounts. Thus the trader not only loses the money on account but also the potential purchases and rug sales that the customer might otherwise have made (Wheeler, Barr, personal communication, 1981).

Trips to Albuquerque, Phoenix, Denver and other cities are usually occasioned by a visit to a relative working or attending school there. If a weaver knows she is going to the city, she may try to complete a rug to take along, "just to see what they are paying there." One Kinlichee weaver took a rug to Denver on a visit to her daughter's home. Because of their unfamiliarity with the city, she was unable to make a profitable sale and came home disappointed. Others have had more success.

Despite the myriad places to sell rugs on and around the reservation, weavers are always seeking better deals. One of the questions posed most frequently to this researcher was "Do you know where I can sell my rugs? Maybe you know of a place in Colorado, maybe in Denver?"

Establishing the Price of a Rug

Setting the price of a rug is a business matter between the weaver and the trader (or other buyer). If possible, it is handled

largely in Navajo so that there are no misunderstandings (and perhaps, too, so there is no eavesdropping by tourists who are inspecting the rug room). Each has some idea of what she will take and what he can afford to pay, according to previous transactions.

For many, pricing is a problematic subject, what one trader termed "a ghastly guessing game---market pricing" (Barr, personal communication, January 1982). Prices in the Indian arts and crafts market can fluctuate considerably, making their fair determination difficult. Moreover, weavers and traders do not always share the same point of view.

Most experienced traders examine the rug technically and intuitively to establish their cost and the wholesale and retail values. Then, the price per square foot may be calculated and precedent prices for similar items may be recalled and used as checks on the initial figures. In 1980 the top price to weavers in the Ganado area for excellent quality with an unusual design was \$100 per square foot; anything over this amount was considered imprudent business.

Buying practices around the reservation have always varied---some traders bought by weight, others paid by size, quality and style. Around the turn of the century, blankets and rugs were frequently bought by the pound---a practice that did very little to promote quality weaving. At Roundtop Trading Post in Ganado, this way of buying continued into the 1930s. When the trader discovered the weavers were weighting the rugs down with sand, he switched to

paying by the square foot (D. Anderson, personal communication, August 1979).

J.B. Moore's 1911 catalogue presented rugs of two distinct grades, the Special and the Tourist class. For the Special grade, prices were calculated at \$0.90 to \$1.00 per square foot, thus "we have this class well standardized and there is no great range of prices for them other than that governed by size" (Moore 1911:5). Because Moore's second grade contained a wider range of quality and size, he created five subcategories and calculated prices per pound for each type:

The old way, when all Navajo rugs were of uniformly poor quality, was to sell per lb. of weight, and for a goodly portion of this (second) grade it is yet perhaps as good a way as any. The very reasonable objection to this weight basis is, that no one who buys rugs in it can quite escape buying along with them a percentage of dirt and grease, and the less he pays per lb. the greater the percentage, and the less real rug he gets in proportion. On the other hand, the seller can hardly get a price on such basis that will bring him or the weaver an adequate return on the best work of the grade and in the extra-fine ones, he has to come to the price per piece in the end.

Yet, there are still those who insist on pound quotations and I give them here as follows:

Coarse and common weaves, ordinary hand-washed wool color and pattern work heavy in proportion to size, all sizes, at \$1.00 per lb.

Better quality weave, cleaner, better colors and patterns, lighter weights in proportion to size, at \$1.25 per lb.

Fine, firm and solid weaves, very well cleaned, good color and patterns, very durable, at \$1.50 per lb.

Very fine weave, and nearly perfectly clean, finest colors and patterns, all sizes, at up to \$2.00 per lb., according to quality.

Extra fine and perfectly cleaned, per piece, \$10.00 to \$50.00 each, according to size and quality.

Prices were then relatively standardized. For instance, just after C.N. Cotton went into business in Gallup as wholesale merchandiser, he was paying 75 cents for each saddle blanket and

\$2.00 for each shoulder blanket (Amsden 1934:179-180). By 1925 the C.N. Cotton Company sorted Navajo rugs into five grades--Extra Fancy, Fancy, Extra Special, Special and Common--with set prices not ranging more than ten dollars for each of two sizes (3' x 5' and 5' x 8') in each category (Cotton 1925:8). When the Fred Harvey Company negotiated to buy all of Hubbell Trading Post's best rugs for sale in its stores, they agreed "on definite prices for certain sizes, coming up to certain standards of weave, colors, and design" (Amsden 1934:190).

Today, no one intentionally pays for weaving by the pound. The wide variety of weaving now available--from super-fine miniature tapestries to large sturdy floor rugs, from simple banded designs to highly elaborate pictorial or geometric motifs, from finely hand-carded to commercial yarns--warrants a sliding scale for prices. Prices for the same type of rug can vary considerably depending upon the store's overhead expenses, the personal preferences of the trader, and the type of clientele, in addition to the general economic climate of the reservation and the nation.

A weaver will often have in mind a specific figure that is fairly high and usually out of line with what a buyer could afford: "\$2000, that is what I want." Then, she will have a second-best amount that would at least be acceptable: ". . . but I would take \$700." She might be paid \$550 at the end of this transaction. If she sells regularly to one trader, she may have an idea of what he will actually offer for a particular rug. One woman commented, "He always pays me about \$120 or \$140. That's what I always get for

each rug." Weavers may be seen looking at the stacks of rugs in a trading post, examining the retail price tags and noting any new or different designs. Weavers frequently discuss among themselves the prices that they are paid. Precedent-setting prices paid for a rug are noted and used in bartering arguments, although the highest known price paid for a rug at Ganado until the late 1970s, \$8000, had expanded according to one Kinlichee woman to \$17,000 by 1981.

To begin the bartering process, a trader may ask a weaver what she wants for her rug, or he may make an opening offer. The image of a trader down on his hands and knees closely examining each rug, pointing out each of its flaws and some of its assets, is a fairly accurate picture today, just as it was in the 1930s, 1940s and before (cf. Reichard 1934). Whether wholesaler or retailer, a trader must know a rug's technical qualities so as to ensure a profitable re-sale.

Important traits that one must examine in advance of making an offer on a rug are the flatness and squareness, the consistency and relative fineness of both the spinning and weaving, the quality of coloration, and the symmetry, scale and balance of the pattern. Any imperfections or compromises in quality decrease the offered price. Commercial yarns or processed wool usually discount the price. On the other hand, while the above traits secondarily include the amount of time and energy used in weaving, the weaver takes directly into account the amount of time that she worked on the rug, the amount of patterning, i.e. concentration, she put into it and, perhaps most important to her, her current financial needs

and responsibilities. There are traders who include the latter considerations in figuring a price: one states that he has a soft-spot for "grandma rugs" for this reason.

The client for a commissioned rug will often wait until the rug is finished before establishing a price; the best weavers at Kinlichee also prefer to wait, since they don't want their work prejudged.

Cash is increasingly the popular medium of exchange for rugs today. Weavers appear to prefer cash generally, although some have been known to trade a rug for a particularly coveted piece of jewelry or a household appliance. A number of old-style trading posts still pay for rugs "in trade," with groceries and other items from the store. Hubbell Trading Post, for instance, generally pays for rugs partially in cash and the remainder in trade items from the store. Trucks and cars are offered in trade for rugs by certain border-town car dealers. Only a few Kinlichee women weave the caliber of rug required for a truck down payment, much less the entire cost of a new truck.

Some of the reservation trading posts and larger merchandisers in Gallup and other border towns allow weavers to pay off grocery bills and other debts with their rugs; basically, giving advances in the form of groceries and sundry items for rugs that are in-progress. Cash advances are not common; only made between an excellent weaver and a buyer who knows her well. Collector Gould asserts that paying for a rug in progress by installments encourages continued excellence. He writes: "When you know your weaver, this

is a safe and fair arrangement" (1982:6), however, many traders and collectors report having lost down payments or deposits when a weaver failed to produce a commissioned textile.

The Traders' and Weavers' Perspectives

Certain traders say, "Always buy when a weaver offers, no matter how poorly woven or ill-conceived. Buy so that she'll come back to you again, and so that she'll listen to your suggestions for improvement." In contrast, others maintain, "Never buy anything but the best. When you refuse the 'dogs,' that'll let the weaver know that she must improve in order to sell." Obviously, opinions vary considerably. Moreover, actions often diverge from these ideal statements. Traders who would like to buy every rug, cannot always afford that luxury; those who are quite choosy sometimes get roped into buying a "grandma rug" because of their relationship with a weaver's family. Most must act according to business principles somewhere between these absolute beliefs, or fail. During the winter of 1981, for instance, most traders, regardless of their buying philosophy, were refusing almost all low quality rugs because of the depressed rug market.

While one rug buyer maintains that installment payments help to support a weaver more consistently (Gould 1982); another buyer believes that a weaver "appreciates" the whole sum, received upon delivery of a rug, more than smaller amounts of cash over time--"it seems like more money" (Wheeler, personal communication, 1982). A small sign at Hogback Trading Company reads, "Cash Loans Make

Emenies (sic), Let's be Friends." Others believe that a low level of indebtedness retains a weaver's ties to that trader and is therefore desirable.

The Indian Arts and Crafts Association, a professional organization of traders, dealers, craftspeople, museums, and others "concerned with the image and marketing of American Indian arts and crafts" (Indian Arts and Crafts Association n.d.), includes many rug buyers. The published Code of Ethics has established guidelines for its members' business behavior. The Association through its regular meetings, markets and newsletter, provides a forum for the discussion of craft marketing.

Perhaps the most reasonable recommendation made by traders is to treat customers, whether Indian, bilagaana or other, consistently. "Let them know what to expect when they come in." Used in the context of rug-buying, this means attempting to buy throughout the year by budgeting money through the light and heavy seasons. And of course this statement applies to many facets of trading and business management.

It is apparent that the most successful rug buyers are those who are willing to pay for quality and who urge women toward better and better weaving. There are, of course, other traders and collectors who try to get what they can for a minimal investment, but generally their business is not long-lived. J.B. Moore emphasized the importance of correct pricing in order to perpetuate the weaving tradition:

Navajo Blankets are not cheap goods. It required a lot of valuable material, a great deal of hard labor, a long time, much skill and infinite patience to make a fine one; and they can only be cheap by comparison. Measured by this standard they are very cheap indeed. No Navajo weaver can turn out fine work rapidly, and when the Trader in compliance with the dealer's demands for more and cheaper blankets, tries to force the price of her work down, he simply forces inferior work on her and does not get good blankets (1909:4).

Just as Moore endeavored to encourage "blankets of real merit," many of today's traders follow suit. In the early 1970s Bill Young, trader at Hubbells, paid an unprecedented \$8000 for a Kinlichee weaver's rug. Young was duly proud of the transaction--a weaver had been paid a handsome sum for her extraordinary efforts, a woven tour de force received recognition, and Young was still able to sell the rug and continue his profitable business. The same sentiment is echoed in a 1982 paper written by Arch Gould, longtime collector of Navajo rugs:

The time is here when buying the finest pieces we must pay as much as we dare, not as little as we can get it for . . . The bottom line--are we, the patrons, willing to pay the price? (1982:9, 14).

Most Navajo people would agree to the need for consistent management of posts and treatment of customers. With only a few exceptions--usually represented by the best weavers--weavers show a general distrust of rug buyers and feel that everyone "makes money off me while I don't get anything." Navajos are aware that rug buyers increase the price of their rugs for re-sale, but they don't often understand the role of middleman nor the basic profitmaking principles underlying American business. The most common opinion is, "I should have gotten all that money for my rug."

In 1980 and 1981, when weavers were shown rugs that they had made approximately fifteen years earlier (presently owned by the Navajo Tribal Museum), many women showed great interest in what the rugs originally cost on the retail market. Constant amazement was shown for the increase in prices from weaver to middleman (trader) to retail market to museum valuation, and for price discrepancies due to inflation in the intervening years. Furthermore, the amount of money initially requested by some weavers for their rugs reflects the weavers' inexperience and incomprehension of economics in the bilagaana world. One Kinlichee woman began asking \$25,000 for a 3' x 5' rug because she had seen such a price tag on a rug in a retail gallery.

There have been disreputable buyers among the trading corps as there still are today. But there are also a large number of well-intentioned, hard-working rug dealers who conduct business as fairly as possible. The fact remains that regardless of a trader's commitment to fair dealing, a weaver is rarely, if ever, paid adequate hourly wages for her work at the loom; unless a rug is superior to all others, the arts and crafts market is not able to bear the true cost of a handwoven product.

Summary

The Navajo rug market has expanded in the past several decades, as the entire Indian arts and crafts market has grown to world-wide importance. Just as Navajo women today have more choice in where and from whom they learn to weave and what sorts of designs

they use, they have increased opportunities also for selling their rugs. The importance of reservation trading posts is giving way to off-reservation galleries and rug rooms, and to freelance rug-buyers and collectors seeking private commissions. In deciding where to sell, weavers take into consideration economic concerns, but also other practical and personal matters. Weavers are more free than ever before to seek the best price from a variety of rug-buyers, but it is still rare that a weaver earns the equivalent of the standard minimum wage.

NOTES--CHAPTER 8

1. For comparison with Hubbell's eight-month sales record, Hogback Trading Company in Waterflow, New Mexico, another active rug buyer, bought a total of 3000 rugs during twelve months of 1981 (Wheeler, personal communication, January 1982). This was twice the previous year's purchases according to Wheeler.

PART III

WEAVING IN NAVAJO CULTURE AND SOCIETY

CHAPTER 9

THE SOCIAL DIMENSIONS OF WEAVING

The preceding chapters of Part II describe in some detail the processes pertaining to contemporary rug production and marketing. In order to assess further the state of weaving within Navajo culture, the following three chapters of Part III present an analysis of modern weaving with respect to Navajo social organization, religion, economics and tribal politics. In the present chapter, the social dimensions of weaving in the late 1970s and early 1980s are examined. Salient topics include the roles and positions of weavers in society, the communication links between weavers in the community, and the extent of male involvement in the craft.

Roles and the Weaver's Lifecycle

The traditional roles of Navajo women center on the domestic world--child rearing, housekeeping, food procurement and preparation, farming, hauling water and wood, animal husbandry. In addition, Navajo women have always taken part in religious and political affairs of the tribe, although to an extent less apparent than men (cf. Frisbie 1981; Stewart 1980). Whether practiced as primary occupation, avocation or some combination of the two, weaving must be integrated into an individual's pattern of life. Family and economic circumstances, education, social and political obligations,

and spiritual concerns, all affect the amount of time and energy that a woman may devote to craftwork. Interruptions may be caused by childbearing, farming, herding, travel, ill health, religious ceremonies or other responsibilities. Only a privileged few are able to arrange their lives around weaving rather than the other way around. Nevertheless, the role of weaver, in addition to those of wife, mother and homemaker, provides an important source of identity.

Weaving may contribute to an individual's and a family's standing in the community. It is not only the income and material goods accrued through the sale of rugs, but also the presence of an accomplished traditional craftsman who represents the ideals of patience and productivity which are esteemed by the community, especially if the weaver handles her accomplishments with due humility and reserve. At Kinlichee, many husbands and children of weavers expressed interest and pride in their wives' and mothers' skills. Even non-weaving women note who is weaving and who is not. Some of the best weavers fear their neighbors' envy and possible acts of witchcraft if their skills should be too widely known, suggesting that weaving is indeed a status-giving activity worthy of attention, whether good or bad. Unfortunately it is not possible, given the presently available data, to determine what differences, if any, exist in the status of weavers versus non-weavers.

One cannot talk about the position of weavers without discussing the changing roles of women, in general, in Navajo society. While the primary domestic roles of Navajo women continue to be

important on the reservation, wage-paying jobs and professional careers outside the home are, as in the bilagaana world, becoming increasingly desirable to both young women and men. Higher education and vocational training programs are more attainable now than ever before. Improved transportation and modern appliances have streamlined the chores of the homemaker, and child-care programs and schools have relaxed the schedules of mothers.

Hamamsy (1957) documented changes occurring in Navajo women's lives during the early 1950s at Fruitland, New Mexico, a community in the northern portion of the reservation. In large part these were the consequence of the Fruitland Irrigation Project, an agricultural program instituted by the federal government. Changes were prompted in land ownership as well as land use. Women at Fruitland reportedly were losing their prominent economic position and their leadership role within the family as a consequence of the decrease of their flocks, the isolation of nuclear families from the traditional extended family network, increased male wagework, and the growing dependence of women on their men. Hamamsy observed that weaving at Fruitland was impossible because of the decline in sheep. Women were often bored or restless with their home life, yet could not find wagework like that of their husbands. She generalized to all Navajo women:

We conclude, then, that the changing economic position and social organization of the Navaho today are adversely affecting the women. They are losing their economic independence, the satisfactions and rewards that accompany their functioning and their security and power within the family. (1957:111).

Life at Kinlichee in the 1970s and 1980s stands in marked contrast to that of the Fruitland example, and provides a more moderate view of the pace, extent and direction of acculturative processes. Kinlichee women show greater variation in their responses than those described by Hamamsy who were subjected to directed and intensive social change. At Kinlichee no one is completely isolated from the outside world nor is anyone residing in the community who is completely assimilated into the bilagaana world. The majority of people may be considered as part of the continuum from native-oriented to acculturated, but few are close to the endpoints. Women vary considerably in the amount of schooling, in their job experiences, in the occupations of their husbands if married, in their expectations for their children, and in the amount of their wealth and possessions. With some exceptions, young women are generally more educated and more acculturated than their parents. Because many differences exist along age lines, it is useful to discuss contemporary women in terms of age groups. This approach is also useful because weaving is rarely performed in a consistent manner through the life of a single individual. Roles change as one grows older and so, too, one's approach to weaving may change through the years. There must be a period of learning and adjustment, there are recurring questions about continuing the craft, and the aging process assuredly affects a weaver's productivity.

The elderly women of Kinlichee, generally those over 60, remain relatively isolated from current changes in women's roles. Their roles continue to be native-oriented. Usually "retired" from

raising a family and from specific economic concerns, they may continue to have a role in family decision-making and to participate in family activities. If weaving was an earlier occupation, it may continue, but usually at a slower pace. A daughter, granddaughter or other young relative may accompany the woman to the store to sell her rugs. Most older women still wear Navajo-style clothing and hair-styles. A few old women were educated in Catholic schools earlier in this century and speak excellent English, yet they maintain ostensibly traditional lifestyles and are little affected by modernization.

It is the middle-aged women to whom Vogt (1951:93) referred when he suggested that women provide a conservative force in Navajo society. While they are affected both directly through their own and their husbands' contacts with the outside world, and more indirectly through changes in their children's lifestyles, roles of wife and mother continue to be of paramount importance to women of this generation, even when outside wage work is obtained (see interview, "Ruth Roessel Stresses Traditional Family," Navajo Times, April 7, 1982, page 18).

In contrast to Hamamsy's observations at Fruitland, Kinlichee women in this age group maintain social and familial prominence and control. It is these women who often initiate or prevail at traditional curative ceremonies and squaw dances. Land is still owned primarily by women, and they are able to contribute significantly to a household's livelihood. While young people frequently leave the family home to be closer to jobs and schools, there is evidence that

they return on weekends and holidays, expanding their mother's household and preserving some semblance of her extended family. Table 9.1 provides just one example of an extended family's residence patterns, illustrating this phenomenon. It is among the middle-aged women that the majority of weavers today are found. Most learned when they were young and have continued because it is an enjoyable, income-producing pursuit which fits into their daily round of domestic activities.

While young women often contribute to their mothers' traditional affairs, through visits home on weekends for regular maintenance of fields and flocks and participation in special events with the extended family, they often lead a double life. Whether they follow their husband who has family or employment outside of the community, or their own job or schooling, many young women have homes outside of the community. Others who continue to live at Kinlichee commute to Window Rock or some other nearby area for employment. Even those who are unemployed and perhaps raising a family near their mothers' home tend to be better educated than their parents and to have less native-oriented values.

The continuation of traditional lifeways by this generation is by no means certain. It appears that without the leadership of their mothers and older relatives, many of the ceremonies, customs and skills will not be maintained. A woman under 40 who wears traditional Navajo-style clothing, even if she is living in her mother's camp, is the exception rather than the rule. While many return home to attend traditional ceremonies arranged by their

TABLE 9.1

RESIDENCE PATTERNS OF AN EXTENDED FAMILY

FAMILY	RESIDENCE	
	Weekdays	Weekends & holidays
Mother	Kinlichee ^a	Kinlichee
Father	Kinlichee	Kinlichee
Dau 1 (+ husb & 5 children)	Window Rock	days: Kinlichee ^b nights: Window rock
Dau 2 (+ husb & 2 children)	Farmington	alternating between Kinlichee and in-laws at Black Mountain
Dau 3	Window Rock	Kinlichee
Son 1 (usually w/o wife & 1 child)	Ft. Defiance	Kinlichee
Dau 4	Ft. Defiance	Kinlichee
Son 2 (+ wife & 1 child)	Kinlichee ^c	Kinlichee
Dau 5	School - Chinle	Kinlichee
Son 3	Kinlichee	Kinlichee
Dau 6	School - Toyey	Kinlichee

^aKinlichee refers to the mother's camp at Kinlichee, unless otherwise noted.

^bThis nuclear family owns land at Kinlichee and spends time both at their small homestead and at the mother's camp.

^cThis young nuclear family has a separate hogan within the mother's camp.

families, few have the knowledge and contacts, much less the intention, to initiate such elaborate performances by themselves. There are, of course, implications for weaving in these changing lifestyles. Most young women are preoccupied with raising a family or earning a living. Few have the time and interest to devote to regular weaving. The exceptions are notable, for example, two young women at Kinlichee are interested in weaving because it is a part of their heritage. They are the only weavers at Kinlichee to be considered as "revival" weavers. A small number of young women have learned to weave because of their inability to find wage-paying work in this time of high unemployment and job scarcity. It is important to note that a majority of the women in this age group do not weave for the same reasons that their mothers' generation weaves. They do not consider weaving as part of their domestic responsibilities, but rather as a special activity performed in addition to their homemaking roles.

For the youngest group, the present day schoolgirls who are just learning to weave, it is too early to predict the future. Most Kinlichee girls under 16 either commute to the Ganado public schools or attend boarding schools. It is apparent that they are growing up in a world radically different from that of their grandmothers and mothers. Parents who urge their daughters to weave do so because weaving represents a tie to their heritage and because it is potential income when no other jobs may be available.

Network Formation among Kinlichee Weavers

Weavers at Kinlichee are a loosely bound, relatively independent group of individuals. As Hobson (1954:13) found, Navajo people in general prefer "self-sufficiency and individualism rather than interdependence and cooperation" in their work situations. Similarly, Kluckhohn and Leighton (1974:309-310) characterize the Navajos as prizing their individuality and autonomy.

The amount of help required in weaving depends upon the specific person's capabilities as well as the scope of her chosen project. Some weavers are entirely self-sufficient and appear to prefer solitary activity, from gathering dye materials and preparing yarns, building and setting up the loom, to marketing their products. Others lack transportation or simply prefer the comraderie of plant gathering with someone else. They may need help in warping and setting up a large loom, or must rely on assistance for advancing a cumbersome warp or in finishing the final delicate weft rows.

As described in Chapter 5, kinship networks form the traditional and continuing basis for cooperative weaving efforts. Mothers and daughter often weave together, as do sisters, aunts and nieces, grandmothers and grandchildren. Women of the same clan living in close proximity generally form social groups, although women of other clans who live nearby or who are affinally related may also participate (cf. Lamphere 1977). It is these people who share rug designs to some extent and who lend each other help on particularly difficult projects.

Much of the aid rendered to weavers is reciprocally exchanged. Mothers and older female relatives are prime helpers.

Daughters either living at home or paying a weekend visit are often enlisted to lend a hand even if they do not weave on their own. Sons, husbands and other male relatives frequently have a supportive role in certain tasks (discussed in the next section of this chapter). Unrelated neighbors and friends are not ignored as sources for assistance. One Kinlichee weaver has a friend who belongs to another clan and lives almost fifty miles away, yet she will come and help if an extremely large loom is being warped, because she "learns a lot about weaving by helping."

Some expert weavers are available to help for a certain consideration, the price depending upon the size of project and the amount of time consumed. A Kinlichee woman received a fat sheep and a lamb for teaching someone to make a twill rug; she received \$25 cash for teaching her how to weave sash belts. The two women consider each other friends and yet such sharing of knowledge requires compensation, just as it does for the education of a ceremonial singer among men (cf. Mitchell 1978:324; Newcomb 1964:109-110). Other transactions between women include spinning yarn for another, carding yarn in preparation for the spinning, gathering plants and demonstrating a particular vegetal dye.

Despite claims of independence, weavers at Kinlichee do keep in touch with what others are doing by personal observation, visiting each other's homes, and through gossip. When any given woman was queried about other weavers in the community, she could name at least four or five women and often more than that. Frequently women would report in detail on others rugs and looms.

There is a general tendency towards reserve among weavers, particularly among the best weavers in the chapter. Several women have expressed the desire to "keep my designs for myself." A number of women avoid any advertisement of their skills because they say they fear the jealousy of other weavers and the possibility of inviting witchcraft. A few weavers are genuinely modest and somewhat embarrassed by their weaving skills. For instance, one older woman whose partial blindness prohibits her from making the excellent rugs she once wove was very apologetic about her now modest weaving.

The only formalized group of weavers on the reservation at present is the Crownpoint Rug Weavers Association in New Mexico. This group sponsors regularly scheduled auctions and its members receive a high percentage of their rugs' sale price (generally 90 percent), plus dividends from the association's earnings.

According to the trader at Cross Canyon Trading Post, in the 1960s the Kinlichee Chapter House sponsored a series of similar auctions at which women of the community sold their rugs. It is unclear whether these were woven at the chapter house under an arts and crafts program or woven independently. For reasons unknown (possibly related to the developing competition of Hubbell Trading Post and to the fact that tourists rarely stop at Kinlichee), the auctions did not continue into the 1970s.

The chapter house arts and craft programs sponsored by ONEO and CETA (discussed in Chapter 5) have provided a potential yet apparently unrealized forum for the weavers of Kinlichee. The

popularity of such programs was based principally upon their economic rewards (weavers were paid standard minimum wages, more than most earn by weaving at home). Women also enjoyed the opportunity to socialize while weaving. Because the program was winding down in 1980 and 1981 and is now defunct, it is difficult to ascertain what other concerns were fostered by these programs. A study of the CETA-funded programs at the time should have included who was involved and why, whether the program provided new connections between people or reinforced links that were already established, and whether craft production or other activities (gossip, personal problem-solving, formation of social or political alliances, and so forth) predominated. Such a study would have been a useful contribution to understanding more about Navajo women's loosely knit, informal communication networks.

Male Involvement in a Predominantly Female Craft

Weavers among the Navajo are typically and traditionally female. The role of weaver developed, in large part, out of the necessity to provide warm and decorative blankets and clothing for the family. Despite the fact that weaving since the nineteenth century has been primarily a commercial enterprise, it remains part of the woman's domain. The roles of men vis a vis their women who weave and the exceptional cases of male weavers are discussed in the following pages.

While most men do not participate directly in weaving, many are aware of its requirements and many a husband or son can explain the specific steps in making a rug. Many men, both traditionally-

mind and relatively acculturated, take pride in their family's weaving. To some it is the link to traditional life that is valued; to others, the economic gain and the status brought by a creative, capable woman and by wealth properly wielded.

In Chapter 6 the role of men as tool-makers and loom-builders was mentioned briefly. Male relatives commonly carve combs and battens and take charge of constructing the loom, women may also do these. These jobs are usually accomplished by men within the household group. A married woman's brother, who commonly enters into other family affairs, may also help. The tasks are generally not very time-consuming, but they do require that the man be familiar with the best types of wood and the tool forms preferred by weavers. Most often, these tools are referred to as "gifts." although many women may request that they be made.

Men also sell their tools and loom-building services on occasion. Small handcarved tools can be seen for sale on trading post counters. Women sometimes report that a certain tool or loom was purchased from a unrelated man. Some years ago the CETA-funded chapter house program at Kinlichee trained men to build lumber looms with adjustable beams. These were sold to weavers in the chapter. Several men have continued to make these looms now that the program is finished.

Most women are quite capable of selling their own rugs, yet occasionally a male relative or friend may take a weaver's place in marketing. Some men travel between the reservation and border towns for their jobs and have more opportunity to seek the best price.

Some men speak better English than their wives or mothers because of their increased exposure to the bilagaana world through schools and employment, and thus they may have improved bargaining power with traders.

Men or boys will occasionally joke about weaving on their own. Because it is known and accepted that weaving is women's work, a joke is easily made about the role change. A brother may jokingly challenge his sister, saying he could earn more money with his imaginary weaving. A husband may comment in fun that jobs are so scarce that he would like to learn to weave. Nevertheless, since at least the 1880s there have been a number of exceptional male weavers who have made rugs in earnest.

A number of accounts of male weavers have been published. In 1884 Washington Matthews wrote of the few men who wove: "... among them are to [be] found the best artisans in the tribe" (1884:385). Before the turn of the century, the half-Navajo mother of Hosteen Klah reportedly learned to weave from her father, a Hopi man (Newcomb 1964:67-68). Since among the Hopi it is the men who typically weave, this was not unusual. She, in turn, taught her Navajo son to weave and he became famous for the sandpainting tapestries that he and his two nieces, Mrs. Sam and Mrs. Jim, wove from his designs. Gladys Reichard (1936:161) wrote of several male weavers but had only personally met one, the same Hosteen Klah, also known as Left-Handed Singer:

Left-Handed Singer of Newcomb is the only one of this sort whom I know personally. He is well known by Whites and Navajo and is greatly respected. He is an extraordinarily interesting character; he has a superior type of intelligence combined with

extreme gentleness, and at the same time he is remarkably independent. He weaves only sandpainting tapestries. Being an accomplished singer, he weaves the designs "out of his head."

In the 1940s Anderson (1951:86) recorded a few male weavers in the Kinlichee area:

As for men weavers, a few [female weavers] knew of Hoskie Begay, classified as an excellent weaver who could do all the hard designs, living near Fluted Rock. One woman knew a boy who had recently entered the Army who could weave. The remainder knew of no male weavers and appeared rather surprised at the question of the fact that there might be male weavers.

Today, there are no male weavers as well-known as Hosteen Klah, yet there are indications that a considerable number of male weavers might exist, relatively unknown and entirely unstudied. Most traders, when questioned, will admit to knowing of at least one man who weaves. Little surprise is shown. If the weavers' names on the rugs in any one trading post inventory are inspected, it is likely that several male names will show up.

An informal survey of reservation trading posts and questions posed to various reservation residents (primarily female weavers) between 1977 and 1982 has pointed up at least twenty four men and boys ranging in age from five to sixty who weave to some extent. One man and one boy from Kinlichee are known to weave. Undoubtedly there are others because the study was far from comprehensive.

Rug quality ranges from coarse double saddle blankets of simple stripes to super-fine Two Grey Hills tapestries. In contrast to Tanner's report that ". . . on several occasions Navajo men have done special types of weaving" (1968:63), a wide variety of rugs are woven which are indistinguishable from the products of women.

At least eight male weavers on the reservation sell rugs on a regular basis and must rely, to some extent, on the income produced. A number of men were apparently laid off from jobs; a few boys used weaving in place of other summer employment. At least one of the youngest boys, six years old, took yarn from his grandmother and made a rough frame of sticks on which to weave by himself. His great-uncle is also a weaver, although the two do not work together. At least one of the men is a ceremonial singer. His father did not weave but his grandfather reputedly had been both a singer and weaver. Hosteen Klah, of course, was a very well-known and accomplished singer. Reichard notes, "Men who weave do not by any means restrict their weaving to the religious designs, although they are likely to be learned in medicine" (1936:161).

A young schoolboy, the grandson of a Kinlichee weaver, is enthusiastic about weaving and by 1982 had made two small rugs. He does not tell his friends about his hobby, despite the fact that he takes obvious pleasure in his weaving. His mother and several other female weavers are encouraging him to become proficient. Several of the men who weave are also rather shy about their craft and do not generally make their weaving skills public knowledge. Reactions from female weavers and from non-weavers when queried about male weavers ranged from matter of fact identifications of men who weave to giggles and jokes about the absurdity of the matter. Several people considered such questions an invasion of privacy and preferred not to discuss the subject.

One prominent male weaver from Shiprock capitalizes on his weaving abilities and relatively unique status. He commands high prices for his Two Grey Hills style rugs. Traders have said that he will occasionally bring in a women friend's rugs to sell, because he can obtain a higher price than most comparable female weavers simply because he is a "rare" male weaver.

Reichard notes, "If a Navajo man weaves, he is put in the class of 'man-woman,' a category sanctioned as including such men as want to carry on woman's activities, of such men as one of my informants said who 'do not likes women'" (1936:161). The Navajo categorize human beings as male, female or nadleeh, the latter encompassing bisexuals, homosexuals, transvestites and hermaphrodites (Hill 1935: 272). Nadleeh translates directly as "he repeatedly becomes, he changes" (Young and Morgan 1981:525). In Navajo mythology, during a trial separation of the sexes, the nadleeh provided men with all the things that women normally provide (Fishler 1953:125). A number of nadleeh in recorded history have been excellent weavers as well as housekeepers and cooks. Hill (1935:272) notes that nadleeh were said to excel not only as weavers but as potters and basketmakers. Hosteen Klah was reportedly a hermaphrodite:

This accident of birth placed him in a very special category among his family and contemporaries. The Navahos believed him to be honored by the gods and to possess unusual mental capacity combining both male and female attributes. He was expected to master all the knowledge, skill, and leadership of a man and also all he skills, ability, and intuition of a woman. Klah during his lifetime lived up to these expectations in every way. (Newcomb 1964:97).

In 1935 Hill reported on six nadleeh living on the reservation. At least two were hermaphrodies and wove. Involvement in weaving by two transvestites and the two remaining nadleeh was not known.

A Navajo woman described one older male weaver in 1979: "He is supposed to be half man, half woman." Unfortunately, further contemporary information concerning the marital status and sexual preferences of known male weaves is inadequate. At least a few are married, with children of their own. Several others are single although middle-aged or older. The motivations and orientation of male weavers will make an excellent topic for future research.

CHAPTER 10

RELIGION, TRADITIONAL BELIEFS AND WEAVING

According to traditional Navajo beliefs, weaving is one of the essential resources given to the people by a decision of the Holy People who were responsible for establishing the present world and its inhabitants (Walters 1977). Traditionally a life-long relationship existed between the Navajo people and their weaving. The importance of the craft was noted at the birth of a girl, at which time her umbilical cord would be buried underneath, placed near or tied to the mother's loom in order to assure that the girl would become a skillful weaver (Newcomb 1940:29; Bailey 1950:74; Hedlund, field notes, 1982). At the death of a weaver, her spindle and other tools often were placed in her grave (Newcomb 1940:76). During the course of a weaver's life, her weaving formed an integral part of her full round of affairs, contributing to the secular subsistence activities and intimately relating to her spiritual concerns.

In this chapter the discussion will focus upon the particular ways in which traditional Navajo belief systems involve, affect or are manifest in contemporary weaving practices. In this exploration, we will move from an examination of the formal ritual context of weaving to the everyday behavior in which these are reflected.

Before discussing of weaving specifically, some notes about the current status of religion on the reservation are necessary. Three formalized religious orientations co-exist at Kinlichee today: traditional Navajo beliefs and practices, the Native American Church (the peyote cult), and Christian churches of various denominations. The Navajo religion, of course, is the oldest and forms an integral part of Navajo culture. Curative and prophylactic ceremonies form the basis of traditional ritual. In the 1940s Kluckhohn and Leighton (1974:225) estimated that Navajos spent approximately one quarter of their time in traditional religious pursuits. While participation today is probably considerably less, Navajo religious activity continues to be "a dominant theme in the lives of most Navajo and a focus for community participation" (Worth and Adair 1972:39). Most of this chapter will deal with the implications of traditional Navajo religion for weaving.

In the 1930s the Navajos were first exposed to the peyote religion through the Ute Indians of southern Colorado. Between 1940 and 1967 the use of peyote on the reservation was illegal. The Native American Church, a fusion of Christian and pagan belief systems, has become increasingly popular among the Navajo in recent years. Many Navajos at Kinlichee simultaneously embrace their traditional religion and the Native American church, a practice which is also common elsewhere on the reservation (Lamphere 1977:29). At Kinlichee many of the very best weavers at Kinlichee are prominent members of the Native American Church. Whether membership in the church has any particular influence on weaving is not

known. A study of the subject would be very worthwhile as it may be possible to correlate the two insofar as peyotism encourages a strong work ethic and traditional activities while discouraging excessive drinking and other destructive habits (cf. Aberle 1966; Blanchard 1977).

Christianity has a long history on the reservation and Kinlichee has not been excluded from its influences. While there is a small, relatively well attended Christian church located near the chapter house, other churches in the surrounding communities--Presbyterian, Catholic, Assembly of God, Latter Day Saints (Mormon) and others--all draw participants from Kinlichee. The extent of religious practices among Kinlichee's residents was not a focal point of this study. Specific data on church membership is not available and thus the implications of the Christian faith for weavers has not been extensively explored in the present paper.

"My Rugs Come From Spider Woman"

It is common knowledge among weavers that in the beginning, Spider Woman taught the Navajo people to weave, but few appear to know the entire story as recorded by the Franciscan Fathers (1910:222):

The Spider Man drew some cotton (ndaka') from his side and instructed the Navajo to make a loom. The cotton-warp was made of spider-web (nashjei bitlol). The upper cross-pole ni'bitlol (earth or lower cord). The warp-sticks were made of shabitlol (sun rays), the upper strings, fastening the warp to the pole, of atsintl'ish (lightning), the lower strings of shabitolaji'chi (sun halo), the heald was a tsaghadindini isenil (rock crystal heald), and cord-heald stick was made of atsolagha' (sheet lightning), and was secured to the warp strands by means of n'tsatlol bil'destl'o' (rain ray cords).

The batten-stick was also made of shabitlajiłchi (sun halo), while the beidzai (comb) was of yołgai (white shell). Four spindles of distaffs were added to this, the disks of which were of cannel-coal, turquoise, abalone and white bead, respectively, and the spindle-sticks of atsinitl'ish (zigzag lightning), hajiłgish (flash lightning, atsolaghał (sheet lightning), and nłtsatlol (rain ray), respectively.

The dark, blue, yellow and white winds quickened the spindles (beedizi) according to their color, and enabled them to travel around the world. (Franciscan Fathers 1910:222).

Clearly, the first loom was a thing of beauty and portent. Gladys Reichard (1934: title page) cites a very similar legend which is unreferenced and perhaps taken from the Franciscan Fathers' work; only a few weavers today can describe it so completely:

Spider Woman instructed the Navajo women how to weave on a loom which Spider Man told them how to make. The crosspoles were made of sky and earth cords, the warp sticks of sunrays, the healds of rock crystal and sheet lightning. The batten was a sun halo, white shell made the comb. There were four spindles: one a stick of zigzag lightning with a whorl of cannel coal; one a stick of flash lightning with a whorl of abalone; a rain streamer formed the stock of the fourth, and its whorl was white shell.

Harry Walters, the Navajo curator of the Ned A. Hatathli Culture Center at Tsaile, has published three versions of the origins of Navajo weaving, but none are documented as to their ceremonial sources. He emphasizes that "weaving did not originate in one particular place or with one individual, but in a series of events that involved the participation of different Holy Beings" (1977: panel one). Incorporated into the Navajo creation story as told by Frank Goldtooth, a Tuba City Navajo man, is yet another version of the origin of weaving, distinct from those recorded by Haile or Walters (Fishler 1953:103-105). The Coolidges published a very similar story told by Long Mustache of Klagetoh (1930:87-89).

According to the Franciscan Fathers, the Moving Upward chant records the introduction of the loom and cloth-making to the People by Spider Man and Woman (1910:222). Presumably this was the source for their account cited above. Unfortunately, the published version of the Upward Moving (or Upward Reaching) ceremony, classified as part of the Evilway series of rituals, does not include any mention of weaving (Wyman and Bailey 1943). Thus a certain amount of obscurity surrounds the ceremonial context of the beginnings of weaving. Perhaps this is due simply to the inherent flexibility of Navajo religion: "Any one of the parts may be slipped from one context to another with ease and with what the Navaho considers complete consistency" (Reichard 1970:314). It may also be due to the fact that weaving has been incorporated into Navajo culture in relatively recent times and therefore is not as well-integrated into the religious sphere as are certain other, more universal human issues (cf. Spencer 1947).

Spider Woman, the originator of spinning and weaving, plays an important role in many other Navajo dramas. In the Shooting Chant it is Spider Woman who furnishes the Twins with "life feathers" (talking prayersticks) for their journey to the Sun and their father (Reichard 1970:648); who protects them on their arduous way through the Slipping Sands (1970:466-467), Crushing Rocks (1970:427) and Cutting Reeds (1970:427-428). Cloth-making is not her only creation for she made the ants in the first world (1970:435; Stephen 1930:88-104), and other activities not apparently related to weaving are also associated with her. Like certain

other Holy People, Spider Woman has a dual role. She is an aid to the Twins and to the Navajo people, but can also be troublesome and treacherous. She is what Reichard terms "undependable" (1970:63-64) rather than wholly "unpersuadable" (1970:70); "a helper of the deities and of man" (1970:64-66) and one of the "intermediary" animals as compared with either deity or mortal man.

Spider Woman appears in the traditional myths of other Native American peoples: Hopi and other Pueblo Indians (especially the Keres Pueblos), Kiowa and Cherokee (Marriott and Rachlin 1968:47-50; Scarberry 1982). In all, she seems to be associated with the creation of beautiful things--textiles, baskets and ceramics.

Kinlichee weavers today rarely mention Spider Woman in daily exchange. Private knowledge about her and about traditional Navajo religion varies greatly. Most middle-aged or older women, if questioned directly, acknowledge her as the first weaving teacher. However, most younger women will defer to their mothers or grandmothers for an answer about Spider Woman. A few also referred to men in their families who have considerable ceremonial knowledge. Several women in the Kinlichee area, now in their 70s, attended Catholic schools in their youth and thus were limited in their exposure to traditional beliefs about important figures such as Spider Woman. One 77 year old, who is an active weaver and who has a very traditional lifestyle from the perspective of housing and livelihood, says, "We don't even think about it (traditional lore about weaving). We don't even know how. We didn't ever know. We

just weave." In contrast, some of the younger women have taken an interest in their heritage and by reading books as well as referring to their knowledgeable elders they are learning the legends and stories of their people. One woman attempted unsuccessfully to tape-record her mother telling some of the Spider Woman stories and singing some of the pertinent songs.

Songs and Rites

According to several knowledgeable weavers at Kinlichee (as well as the previously cited sources for Spider Woman stories), every weaving tool and loom part has its own song and each object has a special alternate name for ceremonial use. "There is a song to every tool of the weaving." Reichard notes that "Even Spindle has an invocatory offering..." (1970:542). There are also a variety of songs that precede and accompany the weaving process:

First you've got to sing. And when you finish do the same thing. Every tool has its own song but nobody knows today. I think some people do but I don't know.

McAllester has noted that weaving and spinning songs were included among Navajo "work songs." He states that in 1954 they were little known and had become rare (1954:63). He cites an Ethnic Folkways record on which the weaving, spinning and corn grinding as well as silversmithing songs are preserved (Rhodes 1949). From the transcript of an interview of a Navajo man from the Chinle Agency, the following was acquired:

The weaving song (biyin) was made for weaving. . . All the weaving equipment had a name. Some of the women (sani) know the names, the songs (biyin), and the prayers (zodizin). They use them in their weaving. When the women are weaving they have prayers like: May my rug give me a good price./ May I have inherit the useful hardware./ May I have the precious stone. (Brugge n.d.: Tape 71).

Apparently the use of a blessing song prior to weaving varies tremendously at Kinlichee. Some women report no knowledge of weaving songs whatsoever, and others admit to knowing about them but not using or "believing in" them. Others say that a song is used "whenever you feel like it, not every time." Finally, there are those weavers who say a protective song is a necessity (although they too may not use it consistently).

One women, now in her 50s, was taught the weaving songs by her father. She had not taught her adult and teenage daughters the songs because "they have never asked me." She does not use the songs consistently with her own weaving. She simultaneously embraces traditional Navajo religion and the Native American Church. She says (with a daughter translating):

You need a song to weave. It goes with the prayer and that kind of song. . . You get all the valuables when you weave. . . All the valuables are connected with the loom, that's the way the song goes. . . There are songs when you put up and take down the loom. Use them once in a while. I don't always do it. When you are finished you are supposed to fold the rug in half and bless it and put corn pollen on top and underneath it. You are supposed to stand beside it and bless it.

Parts of the spinning song were sung by a medicine man for her youngest daughter's kinaalda, puberty ceremony. The entire song for weaving was not sung. Another daughter explained that these songs are very special and that the person who sings them must be very close to the person for whom they are sung. "They hide these

kinds of weaving songs. They are only sung if you really love this person or if you are related to her." She notes that a participant at a kinaalda who chooses to sing the special weaving song for a girl will receive the very best part of the ceremonial corn cake, the middle which is normally reserved for the officiating singer.

In contrast, another woman, in her middle thirties knows no weaving songs although she is a prolific weaver. A member of the Native American church, she says, "The only thing to help out is to know who is around you and to know who made you--its the same thing as 'Jesus is Lord.'"

There are other ceremonial occasions in which weaving is involved, particularly when a woman has worked too hard. Excess in any activity, including weaving, can bring on sickness according to traditional belief (Reichard 1970:81-81). There are many women who ignore this injunction today. As early as 1910, Father Haile noted that such observances were already weakening. He described the traditional cure for over-zealous weavers:

. . . the now vanishing tradition that weaving should be done with proper moderation. Overdone weaving (akeitl'o) is aemliorated by a sacrifice offered to the spindle (beedizi). Its prayerstick (biket'an) consists of yucca, precious stones, bird and turkey feathers, tassels of grass (tl'o'zol) and pollen, and forms parts of the blessing rite (hozhoji). The hacliyatqei or cliaeyatqei (prayer to the gods), is recited with the sacrifice. The custom of withholding maddens from weaving before marriage, which was formerly observed, is also explained by the fear of over-doing weaving. Little or no attention, however, is paid to this tradition to-day. (Franciscan Fathers 1910:222).

A number of women at Kinlichee have had the Blessingway ceremony performed for them because of excessive weaving. Others talk about avoiding too much weaving. Interestingly, three of these

weavers expressed an interest in having the ceremony recorded so that they could learn it or re-use it in some manner. In two cases the singer requested more money or goods in exchange for permission to record. Neither woman had the necessary funds or trade items. In the third case the woman reported that her husband dissuaded her from the project and so she never arranged to make the recording.

Noel Bennett has also documented the use of the Blessingway ceremony for women who have woven "too much" (1974:32-33). In addition, she mentions the use of a "personal method" for curing the overly zealous weaver by collecting all of the yarn ends from a finished rug and burning them, breathing in the smoke while massaging arms and hands in the smoke (1974:33). While no Kinlichee weaver reported this particular cure, a few women believed that certain other actions rather than a major sing would help them. A common resort was the "weaver's pathway."

The practice of making a "weaver's pathway"--a thin line of contrasting colored yarn which passes from the inside field of a rug through its borders to an outer corner--is one method of alleviating problems associated with excessive weaving, according to a number of women. Most women who spoke about the pathway at Kinlichee were in agreement with Bennett's consultants from the western reservation:

And so a complex concept emerges from a seemingly simple line--a concept involving the weaver's fear that in channeling all her energies and mental resources into a rug with an enclosing border, she may encircle and thereby entrap her spirit, mind, energies and design. In jeopardy are the future loom experiences: the continued use of design, the well being of weaving muscles, and of paramount concern, her vision and sanity. The moment of Pathway is a moment of liberation, of peace, of security--and a wish for the future: may the next weaving be even better. (1974:35).

In contrast to the Two Grey Hills area where the "spirit trail" or "weaver's pathway" is almost always used in rugs with borders, Ganado-style rugs and others from the Kinlichee area contain the line much less frequently. A large number of Kinlichee rugs are banded and borderless, thereby eliminating the need for such an "outlet." Bennett indicates that the frequency of the line's use has been declining during the past several decades. Lacking comparative data with time-depth, it is not possible to state whether this is true at Kinlichee. Kinlichee weavers appear to be at least as flexible as those on the western reservation, if not more so, about the pathway's use. Bennett quotes several weavers:

You don't have to put it in each time---just whenever you remember.

The old women, they say to do it every time, but usually nowadays the weavers just do it when they remember.

You only have to do it when you weave a rug with a border, not when there are just stripes. The stripes are already a Path.

My mother did it. I don't put it in though; I just weave. (1974:9).

One Kinlichee weaver described her use of a more subtle version of a weaver's pathway. According to her, it was imperative to leave the end of the very last weft yarn broken at the rug's edge rather than turned inward toward the center of the rug. This, she said, would provide the same sort of release that a pathway does.

Restrictions Imposed Upon Weaving

One of the most common and easily elicited groups of beliefs concerning weaving are the numerous proscriptions about certain activities. Taboos provide insight into the arena of ideal and

appropriate behavior and also give clues to the position of weaving within the changing Navajo culture. Many originate through practicality and common sense; some are associated with sympathetic magic; still others are derived from the origin stories and other myths that are associated with Navajo ceremonialism.

In 1940 Newcomb recorded an assortment of taboos including those affecting weaving. Bailey (1950:41) recorded a number of weaving precautions related to pregnant women. In 1972 many of these were confirmed and published by Bulow (1972). Many of the same were again documented at Kinlichee in 1979-1982.

The consequences of breaking a taboo about weaving vary considerably in their specificity. To the Navajo, not complying with the universe's rules implies throwing things out of balance and creating disharmony. The results of transgression, while phrased in very specific terms for some taboos, ". . . then you will get poor", are understood by most to be broadly interpreted, ". . . or something else bad will happen to you or someone you know." Women speak of particular consequences--rugs go crooked, looms fall over, finishing a rug becomes an ordeal, little money is gained from the sale of a rug, ideas or energy for future rugs do not flow as they used to. Yet many of the results of ignoring restrictions are interchangeable, applicable to a number of broken rules. The general sense about violating any taboo is "things will not go right" or "it will be no good."

Treatment of tools. Kinlichee weavers emphasize that one should not mistreat weaving tools by hitting people or other objects

with them. One weaver mentioned a very practical consequence of such action: "You might hurt someone." Others noted it was unlucky for a weaver. One should not burn wooden tools. If accidentally damaged, a tool should be carefully buried where no further harm will come to it. "Preferably by a sage brush," one woman added. Weavers caution one not to "go between the poles" of the loom nor to pass objects through the loom. A comb or batten should not be left between the warps strung on a loom. Looms themselves should not be left outdoors, nor should they be bumped or roughly moved around.

Most of the above proscriptions grow out of respect for useful and sacred tools, special objects that have alternate ceremonial names and songs. These considerations are also highly practical. Wooden tools, including looms, are prone to warping and breakage.

Weaving combs with more than five tines, especially six, are very bad luck and might cause a woman's baby to have an extra finger or toe. One man said that six through eight were unlucky numbers but five or nine tines were just fine. At the University of Colorado Museum there is a Navajo weaving comb that originally had six tines, but one was broken off and roughly smoothed. It would be interesting to know whether this precaution prompted the reshaping of the tool or whether the missing tooth was merely an accident.

Preparing the loom and weaving. Weavers admit that when one is making the warp yarns "you have to be real careful." Some say a weaver is not supposed to eat or drink while warping the loom. Nor are you supposed to eat while you are weaving, although at least one

weaver has been observed with a coffee cup by her side while weaving. While one is eating, the batten is not supposed to be left sideways in the warp strings according to one weaver; others have said that the batten is never supposed to be left in this position. An unfinished rug should not be left outside at night. Nor should one weave at night or on the north side of the hogan. While Bulow (1972:59), specifies that stealing wool or weaving tools from someone will bring perpetual bad luck, a few women at Kinlichee would add that even borrowing wool or yarn that is not yours might get you or the owner into serious trouble. Nevertheless, the occurrence of youngsters pilfering yarn scraps to begin surreptitiously their first weaving project is still relatively common and not guarded against (see Chapter 5).

The above instructions have practical reasons behind them in part. Warping is the most difficult and crucial process of weaving. It demands strict attention, and warps may stretch out and become uneven if treated to changes in temperature or the stress of a batten in place. More than one weaver has discovered mistakes woven in poor light. Yet these are not simply bad weaving practices, they have more the tone of instructions for living: be cautious and maintain harmony with the entire universe, not just with your small loom. One woman noted that eating while weaving will always "keep you hungry." She also said that weaving at night will not allow you to finish "in time." Leaving a rug outdoors at night may invite witchcraft as well as stretched out warps. A final proscription in this category puts this in perspective: "Do not make fun of your

weaving. Don't laugh at what's on your loom." Weaving may be enjoyable, but it is certainly not laughable.

The weather's effects on weaving. Many women, especially those who spend their summers in the high country where lightning storms are common, say that one should never weave while it is raining or storming. If it begins to rain while one is weaving, you should stop or will invite lightning to strike. This is likely related to the metaphorical relationship of the loom parts with several types of lightning. On clear days, a rug still on the loom should not be put in direct sunlight lest the sun become jealous or insulted. One weaver carefully closes her window blinds, noting that her father told her she might make the sun mad and it would change the colors in her rug.

Who should be a weaver? No one at Kinlichee ever said that men could not nor should not be weavers. It is, nevertheless, generally understood that women are the appropriate weavers. Pregnant women are not supposed to weave, say some; others say that a pregnant woman must finish any rug she is weaving before her baby is born and that all knots on her loom must be untied or the baby's umbilical cord may become wrapped around him or her. In contrast to Newcomb's finding that a young married woman is not supposed to finish a rug by herself (1940:38), Kinlichee women generally take the opposite stance--it is best for a weaver, whatever her age, to finish by herself. Most weavers are quite flexible about this, however, and many women will help each other on their rugs. For

some it makes no difference if a younger woman finishes the rug because an elderly weaver cannot see the fine details, or whether an older, more experienced weaver finishes for a younger person.

Flexibility and Change.

Bulow wrote in 1972, "Many commercially minded weavers and other craftsmen have begun to ignore the taboos of their trades as being too restrictive" (1972:52). Most of Kinlichee's best weavers admit that they could not possibly follow all the warnings that they had heard. A common injunction is "don't do it everytime. If you just do it sometimes, then everything will be all right." A number of weavers claim that no one had ever taught them the essential religious "etiquette" for weaving and so they "just weave." "Nobody knows today. I think some people do but I don't," said one very active young weaver. A few weavers say that they ignored a taboo accidentally once, discovered that there were no dire consequences, and so decided to continue doing things in the easiest rather than most cautious way. Some avid weavers balance efficiency and tradition. One woman now uses turnbuckles instead of rope as the tensioning device on her loom. The original spirally-laced rope provided a visual metaphor for the zigzag lightning in the ceremonial weaving songs. This particular weaver notes nostalgically that the vertical metal turnbuckles do not preserve this sacred form, "but they work better."

CHAPTER 11

THE ECONOMICS OF WEAVING

The subject of marketing has already been discussed, but marketing is a small part of an economic study of weaving. In this chapter the discussion proceeds from an overview of socioeconomics of the Navajo Reservation to the topic of household economics. The contribution of weaving to Kinlichee's economy is analyzed. Finally, a discussion of Navajo economic motives and values concludes the chapter.

Economics on the Reservation

In Chapter 2 the changing socioeconomic situation on the Navajo Reservation and specifically at Kinlichee is briefly outlined. Moving away from the traditional pastoral-agricultural base, many Navajo people are being trained for the seeking wage-paying jobs outside the reservation's boundaries. The tribal government has as first priority the creation of more jobs on the reservation (Navajo Tribe 1980:34). The overall goals for the Navajo Nation as laid out by the "Navajo Ten Year Plan" of 1972 were oriented towards attaining economic self-sufficiency for the Navajo people and were aligned with goals and values of the bilagaana world:

- 1) The development of Navajo natural resources
- 2) The development of a Navajo industrial base
- 3) The development of a commercial sector in the Navajo Nation

- 4) Continued development of Navajo manpower skills
- 5) The development of community facilities and the Navajo Nations infrastructure
- 6) The development of financial resources
- 7) Develop Navajo capability to monitor, regulate and coordinate economic development
- 8) Develop a Navajo Nation tax program. (Navajo Tribe 1979:25).

The overall Economic Development Program of 1980 emphasized similar goals, expressed more concisely:

- 1) Concentration of growth in the modern sector of the economy
- 2) Reducing unemployment
- 3) Tribal administrative and managerial capacity building
- 4) The emergence of energy resources development activities. (Navajo Tribe 1980:10).

In addition to the above, the "quality of life" for all Navajos has become an important issue: "to allow all Navajos the opportunity to choose the lifestyle they desire without being forced to compromise their cultural background" (Navajo Tribe 1980:34).

A comparison of reservation employment in 1974 and 1979 shows that total employment increased from 20,140 jobs to 35,297, not including traditional agricultural, religious and craft pursuits (Navajo Tribe 1979:16). Table 11.1 shows the considerable rise in wage labor from 1969 to 1980. More than three times as many Navajo were employed on the reservation in 1980 than eleven years earlier. The unemployment rate apparently decreased from 35 percent in 1974 to 31 percent in 1979, although in 1980 it increased to 39 percent (Navajo Tribe 1980:11) and has continued to rise significantly since to an estimated 75 percent in 1982 (Navajo Tribe 1982:10). The major portion of jobs exists in the government sector, supporting 67.2 percent of the total jobs in 1979 (Navajo Tribe 1979:18).

TABLE 11.1
COMPARISON OF TOTAL WAGE EMPLOYMENT BY ECONOMIC SECTOR

1969, 1975 and 1980

ECONOMIC SECTOR	1969 ^a	1975	1980
Agriculture	0	177	341
Mining	289	1,607	4,065
Construction	23	3,416	1,883
Manufacturing	2,061	1,022	612
Transportation/Communication/ Utilities	442	1,699	5,961
Wholesale/Retail	605	1,758	313
Finance/Insurance/Real Estate	49	127	179
Services	4,739	9,995	11,812
Government	4,423	4,848	12,144
TOTAL	12,631	24,609	37,310
Non-Navajo	4,222	7,021	10,508
Navajo	8,409	17,588	26,802

Source: Navajo Tribe (1980: Table 9).

^aThe 1969 data do not include the Eastern Navajo Agency.

Secretarial, clerical and service-oriented jobs such as teachers and nurses, all commonly held by women, represent one third of all government employment (Navajo Tribe et al. 1972:17) and so women form a sizable portion of the government-employed labor force. Women also hold the majority of manufacturing jobs on the reservation, while men predominate in the mining, construction and commercial trades.

Table 11.2 shows the predominating occupations of the Navajo labor force on a reservation-wide basis in 1967. It is the only such survey of which I am aware that includes both traditional agricultural and nonagricultural endeavors and a breakdown by gender. Only 10 percent of all men reported traditional occupations, while 41.5 percent of the women recorded their occupation as traditional. Yet, women also account for 38.2 percent of the wage labor work force. While women represent the more conservative economic sector when compared with the men, women are entering the wage labor work force in increasing numbers. Women who are part of the nontraditional force already outnumber those of the same sex reporting traditional occupations.

Tables 11.3 and 11.4 represent the total Navajo personal income for 1978. Traditional economic activities are not included. In contrast to the total earned income of \$341,746,243 and unearned of \$84,017,746 in 1978, the 1960 figures are \$35,538,225 and \$16,085,980 respectively (Young 1961: 228-229). The 1960 income included an estimated \$500,000 for arts and crafts and \$3,950,000 from traditional agriculture and livestock raising, approximately

TABLE 11.2
USUAL OCCUPATION OF THE NAVAJO LABOR FORCE BY SEX
1967

Occupational Category	Male	% Total Male	Female	% Total Female	Total	% Total Labor Force
Professional and Managerial	700	4.4	1000	6.0	1700	5.3
Clerical	200	1.3	800	4.8	1000	3.1
Sales	100	0.6	250	1.5	350	1.1
Service	850	5.4	4600	27.7	5450	16.8
Farming	950	6.0	350	2.1	1300	4.0
Skilled	2650	16.8	200	1.2	2850	8.8
Semiskilled	750	4.8	450	2.7	1200	3.7
Unskilled	7150	45.4	600	3.6	7750	24.0
Subtotal Nontraditional	13350	84.7	8250	49.6	20700	66.8
Traditional Agricultural	1100	7.0	1100	6.6	2200	6.8
Nonagricultural	400	2.5	4750	28.6	5150	15.9
Subtotal Traditional	1500	8.5	5850	35.2	7350	22.7
Not reported	800	5.1	2450	14.8	3250	10.0
Total	15750	100.0	16600	100.0	32350	100.0

Adapted from: Navajo Tribe et al. (1972:17).

Note: Sum of individual columns do not equal totals because of rounding.

TABLE 11.3
 NAVAJO PERSONAL INCOME, 1978

(By economic sector)

Agriculture and livestock	\$ 6,746,907
Mining	91,540,000
Construction	3,906,000
Manufacturing ^a	7,380,000
Transportation/Communications/Utilities ^b	20,939,182
Wholesale and retail trade	1,636,400
Finance/Insurance/Real Estate	585,000
Services ^c	99,347,896
Government ^d	109,969,858
TOTAL	<u>\$341,746,243</u>

Source: Navajo Tribe (1980: Table 1).

^aIncludes Navajo Forest Products Industries and other Tribal enterprises as well as General Dynamics and other private sector firms.

^bIncludes Navajo Tribal Utilities Authority.

^cIncludes Indian Health Service, public schools, Navajo Community College, Office of Navajo Economic Opportunity, Dine Legal Services and similar public services on the Navajo reservation.

^dIncludes the Navajo Tribal Government, Comprehensive Employment Training Act, the Bureau of Indian Affairs and other federal and state agencies.

TABLE 11.4
TRANSFER PAYMENTS TO THE NAVAJO TRIBE

1978

SOURCE	AMOUNT
Navajo Tribe:	
General Assistance	\$10,909,604
Work Assistance	265,462
Miscellaneous ^a	404,000
Federal:	
Social Security	1,950,000
Railroad Retirement Benefits	643,500
Women, Infant and Child Care	4,230,200
Donated Food	7,000,000
Veteran's Assistance	22,350,980
State:	
Categorical and General Assistance	30,000,000
Unemployment Insurance	6,264,000
TOTAL	\$84,017,746

Source: Navajo Tribe (1980: Table 2).

^aIncludes burial, layette, burnout, housing materials, etc.

8.7 percent of all Navajo income. Although the Tribe estimated that 35 percent of the Navajo people in 1974 were "employed in grazing activities in any full time effort receiving a reasonable return" (Navajo Tribe 1974:22), income figures for traditional pursuits are not presented. Nor do any of the Overall Economic Development Programs published by the Tribe since then mention any economic contribution of traditional activities. To understand this side of Navajo life, we must turn away from the government reports and examine the economy on another level.

Household Economics

Individual occupations and the support of a household may vary considerably within even a single year, and certainly many times within a given lifetime. This is an important characteristic of the Navajo economy that is not represented in the official tribal statistics and reports. The economy of the Navajo people has been described as one of "mixed nature" (Lamphere 1977:24), one which depends upon "a multiplicity of income sources, no one of which yields a stable and predictable income" (Aberle 1969:236), and "a situation of high irregular income production both in time and space (Adams 1963:98). Lamphere elaborates:

The major characteristic of the economy is its mixed nature. Nuclear families may have one source of income, but the general tendency is for an extended family residence group to depend on a traditional source of income (livestock and/or weaving) in addition to one or more nontraditional sources (railroad work, other wage labor, or welfare). (1977:24).

Adams (1963: Tables 17 and 18) meticulously collected and presented economic data for one hundred households at Shonto in 1955. Income sources which he includes for the conservative western

reservation community are wool sales, lamb sales, crafts, miscellaneous native-derived income, local payrolls (trading post, school, etc.), railroad wages and unemployment compensation, other off-reservation wages, welfare, and home consumption units. The varied economic resources at Shonto are comprised of sheep, goats, cattle, horses, cornfields, weaving, singing, other native services, railroad and local jobs, welfare, and jewelry available for pawn. Adams demonstrates that most households receive financial support from a variety of these sources.

Although comparable statistics are not available for each household at Kinlichee, observations of chapter residents and households allow for certain generalizations with regard to the diversity of the Kinlichee economy. Table 11.5 presents the many economic resources that are at the disposal of Kinlichee's residents. It is extremely rare for a household or residence group to rely entirely upon a single source. It is equally unusual to depend upon only native or only nontraditional sources. While emphasis is changing to more wage labor, considerably more than Adams reported for Shonto in 1955 for instance, people continue raising livestock, herding sheep and producing rugs as well.

The seasonal cycle of activities include both native activities and certain wage-paying jobs such as those offered by the Navajo Forest Products Industries (NFPI). Often jobs that are potentially year-round are not treated as such by Navajo employees who regard their traditional and seasonal activities as more important. Many will leave a job if it hinders participation in

TABLE 11.5
ECONOMIC RESOURCES AND INCOME SOURCES

Economic Resources	Income Sources	Income Type	Seasonality
<u>Livestock</u>			
Sheep	Lamb sales, wool sales rug sales	Home consumption, credit, cash, trade	Spring/summer
Goats	Mohair sales	" "	Spring/summer
Cattle	Animal sales	" "	Year-round
Horses	Animal sales, races, rodeos	" "	Year-round
Cornfields	Corn and garden crops	Home consumption, trade cash	Summer
Pine forests	Pinyon nuts	Home consumption, trade, cash	Fall
<u>Skills</u>			
Weaving	Rugs	Trade, cash, credit	Year-round
Singing and ritual performance	Ceremonies	Trade, cash	Year-round
Miscellaneous native		Trade, cash	Year-round

continued on next page

TABLE 11.5--Continued

<u>Local jobs</u>			
Trading posts	Labor	Wages, credit	Year-round
Chapter House	Labor/services	Wages	Year-round
Preschool	Labor/services	Wages	Year-round
Boarding school	Labor/services	Wages	School year
Church	Labor/services	Wages	Summer
Community Health Representative	Services	Wages	Year-round
<u>Outside jobs</u>			
Forestry	Labor	Wages	Year-round, summer
Railroad	Labor	Wages, retirement pension	Year-round, summer
Government and private business Window Rock, St. Michaels, Fort Defiance, etc.)	Labor/services	Wages	Year-round
Hubbell Trading Post (Ganado)	Labor/services	Wages, credit	Year-round
Other	Labor/services	Wages	Year-round

TABLE 11.5--Continued

<u>Unearned income</u>			
Welfare ADC, AB, OAA, GA ^a	Nonproduction	Direct payment	Year-round
Social Security and other retirement	Nonproduction	Direct payment	Year-round
Unemployment Compensation	Nonproduction	Direct payment	Year-round (short-term)
Pawn	Jewelry	Loan/credit	Year-round

^aWelfare programs include Aid to Dependent Children, Aid to the Blind, Old Age Assistance, and General Assistance.

summer ceremonies, sheep dipping or a pinyon harvest in the fall. This subject is discussed more fully in the final section of this chapter.

At Kinlichee, a well-to-do extended family might have a father who works seasonally for NFPI and receives unemployment compensation for other portions of the year; a mother who weaves; an elderly grandmother drawing Old Age Assistance funds and who also perhaps weaves; several children in school; several older children with young families of their own, each of whom may or may not have at least part-time work or responsibilities with the livestock and farm. In the fall, if the pinyon crop is good the entire family goes out to pick the nuts. A small herd of sheep and a handful of cattle, plus a reasonably sized cornfield, provide for both the family's consumption and for some small outside sales. There are elderly couples or individuals living by themselves who have far less income and who rely, for example, on Old Age Assistance plus modest contributions from family members living in other places. There are increasing numbers of young couples and their children living apart from the extended family. In these cases, income may be provided principally by the husband's and wife's wages, often from only part-time or temporary employment. Single mothers with several children are not uncommon at Kinlichee and support their families variously with combinations of wage labor, weaving and welfare, as well as with contributions from former husbands and from extended family members. There are, as well, a small number of individuals and entire families living off-reservation who earn

money, a portion of which may be sent to relatives on the reservation.

Economics and Weaving

Given the mixed nature of the Kinlichee economy, it is clear that any activity including weaving rarely provides all of the support for a household or even for an individual. However, with a mean per capita income of approximately \$2200 in 1980 (Navajo Tribe 1981:2), the sale of even a few medium grade rugs can represent a significant contribution to a family's livelihood. In order to put Kinlichee into clearer perspective, the discussion will turn first to a contrasting example from the western reservation.

At Shonto, Adams (1963:125, Table 21) reported that weavers and a few other craftspeople in 1955 contributed \$2685, or 1.6 percent of all community income for the year. Weaving is incorporated into a general crafts category by Adams. Since there were 49 households that derived income from weaving and a total of 54 individuals who received benefit from crafts, it is apparent that weaving was the predominating craft. It is reported that 54 individuals received an average of \$49 and a maximum of \$250 for their craftwork during 1955. Fifty households averaged \$54 from crafts, with a maximum of \$300. Twenty-eight residence groups averaged \$96 with a maximum of \$300 (1963: Table 22). As for the importance of this income, Adams (1963:125) writes:

Rug income is essentially supplementary income, and does not figure in Shonto's regular economic complex. No credit is extended against rugs, and income therefrom is never claimed in payment of accounts due, no matter how large. By standard

trading post policy, rugs are exchanged entirely for merchandise, their assessed value being traded out at the time of exchange.

Although 49 Shonto households [out of 100 total] received some amount of rug income in 1955, only 2 actually depended upon it as part of their subsistence base. In all other cases it was more in the nature of a windfall, and was often spent as such.

Adams (1963:156) explains the lack of interest in weaving on historical grounds:

Commercial enterprise came to the northwestern Navaho country toward the close of the great rug-trading period, and for this reason weaving has never at any time been as important here as in other parts of the reservation. Conspicuously absent are the very large rugs which were once so heavily subsidized, and continue to be made in some quantity farther east. Shonto Trading Post and all of its neighbors have long since ceased to allow any credit against rugs.

Unfortunately no other studies include economic data as detailed as that for Shonto. In contrast to the Shonto case, Young (1955:65, 67n) reported that income from all arts and crafts on the reservation was approximately two million dollars, or 5.6 percent of all annual personal income. By 1960, however, arts and crafts income represented only 1.0 percent of all income (Young 1961:228, 2312n). As mentioned earlier, published tribal statistics for ensuing years (Navajo Tribe 1974-1982) refer only to nontraditional, wage-paying employment.

With regard to weaving income, Kinlichee in the period 1979 to 1982 provides marked contrast with the Shonto community in 1955. The sales records of Hubbell Trading Post provide evidence of considerable income to Kinlichee weavers. It should be noted that figures from Hubbell's represent the absolute minimum possible income to these weavers, as they may very well have sold rugs to a number of sources. In addition, there are probably Kinlichee

weavers who have never sold to Hubbell's and who have earned more or less than this particular group. In toto, the Hubbell payments might represent approximately 60 percent of the community's earnings from weaving, perhaps slightly more.

From February through mid-November 1980, Hubbell Trading Post bought 214 rugs from 62 Kinlichee weavers and paid them a total of \$23,644 in cash and trade goods. Individual rug prices ranged from \$5 to \$903, with women selling anywhere from one to twenty-four rugs during the nine and a half month period. Average price per rug was \$110. The average amount earned during this period was \$381; the highest earnings were \$2070 and the lowest amount in Hubbell's record was \$20. An additional \$17,925 was paid in salaries to two Kinlichee weavers who demonstrated and wove commissioned rugs at the trading post's visitors center. These two are included in the total of 62 weavers because in addition to their salaried work (at minimum wage) they wove independently at home and sold their rugs to the post (sale prices of these rugs but not the salaries are included in the figures cited above).

In order to make comparisons between these figures and those presented by Adams, rug sales may be represented as the minimum percentage of per capita income on an annual basis. Average earnings of \$381 for nine and a half months is approximately \$481 per year. This estimate represents almost 22 percent of the average per capita income for 1980, \$2200. The maximum unadjusted earnings of \$2070 reach 94 percent of the average individual income, and the

two weaver-demonstrators' salaries (\$7966 and \$12,984) were considerably beyond the average income on the reservation. At Shonto, the average annual income from rugs (\$49) represents only 16.8 percent of the average per capita there, and the maximum earned (\$250) is only 85.9 percent of the same.

The trading posts at Shonto, Inscription House and others on the reservation during the 1950s and early 1960s paid for rugs only "in trade," that is, with merchandise from the stores' shelves (Adams 1963). Cash, however, has increased in usage since that time. Because weavers often sell to non-trading post firms, cash and sometimes desirable native jewelry and basketry are primary forms of payment. Hubbell Trading Post, along with a minority of other rug buyers, carries on the tradition of payment in cash plus trade. In 1980, the equivalent of \$334 was paid in trade for 113 rugs valued at a total of \$16,353. Thus, an average of 20 percent of each of these rugs' values (approximately \$30 from an average price of \$145) was paid in trade items, largely groceries. These rugs represent half of the rugs bought from Kinlichee in 1980 (February through mid-November). The other 114 were bought with cash alone. Fourteen percent of Kinlichee's total rug income from Hubbell's was in trade.

Money from weaving at Kinlichee can hardly be considered as mere windfall profit. It provides essential income to certain families and is used for many household necessities; groceries, gasoline, truck payments, tools and supplies, clothing, and home furnishings and improvements. It is also an intensifiable source of

funds in times of specific need. One woman earned enough to have a well dug at her camp. Another is working towards having electricity (from a relatively nearby line) installed in her hogan. One has sent two daughters to college (with additional support from tribal scholarships). Others need weaving money for basic survival funds when welfare does not meet their needs and jobs are unavailable.

Economic Motives and Navajo Values

The Navajo traditionally have had a strong concept of what rightfully constitutes "making a living" for oneself and one's family. Making a living is not earning money with which to buy groceries and other material goods, but physically raising plants and animals and making things with one's hands (Reynolds, personal communication, 1980). Native-oriented subsistence activities including weaving are considered as the things by which one makes a living, even if, simultaneously, wage labor is providing money for clothing, food and other commercial products. Many traditionally-minded Navajos, especially of the older generations, value native ways of "making a living" over and above wage-paying work. This explains, in part, the ease with which one might leave an outside job in order to participate in sheep-dipping or in a pinyon harvest. "Full-time work" is not forty hours per week of employment in the eyes of many Navajos. Rather, it is "a job which satisfied the [individual's] desire to work" (Navajo Tribe et al. 1972:40). This now is changing among the younger generation as more people trade certain aspects of Navajo culture for cash-paying jobs.

Leighton and Kluckhohn (1947:110) note the characteristic Navajo manner of approaching monetary (or other) gain cautiously:

. . . while some Navahos do have a great drive to get rich (and one must ask how much of this is due to white influence), the majority seem to be interested only in safety. This, to many white teachers, makes them seem "utterly without ambition." They themselves will sometimes say, "All we want is enough to eat for ourselves and our families." What is not said but is often implied, by context or in other ways, is that life is so dangerous and such terrible things can happen to people that anyone is foolish to ask for more than security. Hence, the predominant drive is more moderate material well-being.

In his study of the economics of Shonto, Adams (1963), too found that once minimum material standards of living were attained, economic rationality did not adequately explain further decision-making.

In Shonto's scheme of things traditional economic pursuits--subsistence agriculture and livestock, and the practice of esoteric skills--come first, forming the necessary subsistence base of nearly every household and residence group irrespective of their monetary value. . . The role of waged work is subsidiary and supplementary. It is seldom allowed to interfere with more traditional pursuits and is not in itself considered a satisfactory substitute for them by most of Shonto's inhabitants. In other words, in Shonto's present-day economy a clear-cut distinction can be drawn between basic and supplementary economic activities. The former, consisting of these traditional pursuits which were once the community's entire economic base, have served to establish a traditional standard of living which still dominates economic thinking. The latter, consisting of economic opportunities brought about by contact with White culture and society, serve in large measure to establish the community's day-to-day level of living. (1963:110).

In a re-study of Shonto in 1971, Ruffing (1976) found that considerable change had occurred in the economic organization of the community: "They had made rational decisions by shifting labor from agriculture to livestock; within livestock they shifted male labor from sheep to cattle; and there was a definite labor shift from subsistence activities to local wage work" (1976:620). At the same

time, she found that people continued to value work that allowed them to retain attachments to their family or residence group, even at the expense of some income. Thus, low-paying wage labor and subsistence activities in the community were chosen well before better-paying railroad jobs and other employment away from Shonto.

Today at Kinlichee, younger women often say that they will not weave because it does not pay enough, meaning it does not pay as much as an outside job. On the other hand, the actual hourly wage equivalent of weaving matters less to the older women, comprising the majority of weavers, even though a weaver is rarely paid the equivalent of standard minimum wages (see Table 6.1). Time is not equated with money and linearity, but with overall productivity. "The important thing is to be busy and active, not to just sit still." Moreover, because weaving is often practiced in the time leftover from other activities, it is done in "spare time," to which hourly dollar amounts are apparently even less important. With more people receiving Anglo-style educations and employment, time is becoming a valuable and accountable commodity. Those young people who choose to weave must appreciate it for its "old time" qualities, and must lay aside the bilagaana impatience with time-consuming, "time wasting" activities.

PART IV

CONTINUITY AND CHANGE AMONG WEAVERS

CHAPTER 12

ATTITUDES AND APPROACHES TO WEAVING

Among the people who weave there are many distinguishing factors. Many of these have been discussed in the preceding chapters, for instance, the way in which one learns, the quality of woven products, types of equipment and materials, personal scheduling, marketing practices, the amount of income derived from rugs, and the degree of family involvement in the craft. What stands out is the women's own attitudes towards their craft, the way they approach their weaving. The approaches to modern weaving are varied, even in a single community such as Kinlichee. The variety of weavers spans a continuum from novice to professional, from hobbyist to full-time artist. Within this range, distinctive groups may be discerned according to the degree of motivation and commitment of the individual.

In this final section, the weavers of Kinlichee are examined as members of four interdependent and related categories: 1) household weavers, 2) occasional weavers, 3) professional weavers, and 4) revival-motivated weavers (Table 12.1). Two additional groups include those who are just learning and the few exceptional male weavers. The four main groups are not recognized explicitly by the Navajo, but the distinctive features of each group are analytically

TABLE 12.1
COMPARISON OF FOUR TYPES OF WEAVERS

	Professional	Household	Occasional	Revival
Space	Separate hogan, shed or studio.	In home or outdoors.	In home or outdoors.	In home.
Schedule	"All the time".	Some of the time/most of the time	Occasionally - perhaps only at one time in life, perhaps sporadically.	Some of the time; often has other employment.
Materials	Diverse - can invest in precarded wool and still sees virtues in handspinning.	Processed yarn is popular; handspun and commercial materials both used.	Depending on finances, commercial yarn is generally preferred.	Diverse - both handspun and processed, some interest in older techniques.
Tools	Welded looms with ratchets, relatively sophisticated and large-scale.	Smaller lumber looms are most popular; logs and rougher materials also used.	Lumber and makeshift frames, borrowed looms.	Diverse (same as household and professionals).
Family Involvement	Supportive families, generally proud of the weaver and her economic command; husbands and sons often build looms, make innovations; daughters sometimes learning, if only for sake of knowing how.	Generally supportive; daughters less frequently learning to weave; husbands and sons build looms and tools.	Less specific interest.	Generally very supportive.
Publicity	"Name" weavers, generally do not mind advertisement, sometimes request it.	Names not especially well-known; some attempt to increase reputation, but just as many prefer anonymity.	Usually rather shy, reserved about weaving.	No need for a reputation since marketing is not the goal. Some however have interest in sharing knowledge and skills.
Marketing	Direct from loom to customer, often to collector or itinerant trader; commissions, sales at large posts, rug rooms and galleries.	Visits trading posts to seek highest bid, or sells at familiar posts. Often pays off debts in partial trade.	Often sells to nearby trader; debts sometimes paid in trade.	Minimal.
Income	Relatively high.	Significant contribution to household income.	Minimal.	

important in assessing the current conditon of the craft and the changing position of weaving in Navajo culture.

TABLE 12.2

CLASSIFICATION OF KINLICHEE WEAVERS, 1979 - 1982

Weaver Type	Number	Percentage
Professional	9	5
Household	50	28
Household or Occasional	55	30
Occasional	47	26
Revival	2	1
Learning	17	9
Male Weavers	2	1
TOTAL	183	100%

The Household Weavers

The largest and most varied group of weavers is comprised of those who weave seriously and relatively well, and who sell their rugs to supplement their family income. They generally weave because weaving is an integral part of the traditional Navajo woman's roles and of the household economy. Weaving fits into an entire round of household and extra-domestic activities, much as it did for many Navajo women of the past.

At the least, one third of the classifiable weavers at Kinlichee can be considered household weavers (50 out of 149), with

at least an additional portion of the household or occasional unclassified weavers also potentially considered as household-style weavers (Table 12.2). Only two household weavers are less than 25 years old. Seven more are between 26 and 35, while 41 (82 percent) are over 36. Almost three quarters of the identified household weavers are over the age of 46 (Table 12.3).

The household weaver represents the "old" ways, and yet many innovations and changes are evident in her weaving. Time and labor-saving yarns and dyes (many introduced to Navajo weavers in the nineteenth century) are used in greater and greater amounts today. Some of the processed wool and yarns approximate the handcarded, handspun types of native wool quite closely. While changes in the quality of the textiles are evident (from a completely handmade rug to a partially machine-processed one), these materials give beginning weavers an edge in getting started and present expedient alternatives to experienced weavers. Moreover, with looms of milled lumber and welded steel, the weaving process is more efficient and finer rugs of greater precision can be made. These command higher prices, thus inducing a good household weaver to continue.

Rugs made by an individual weaver can vary considerably in their quality, depending upon their intended use and the maker's imagination. Household weavers, especially, have a variety of economic purposes to fulfill, and their rugs vary correspondingly. Some rugs are made with specific goals in mind, like buying school shoes for the children, paying debts, or obtaining cash to fix the house's roof. There are also rugs sold for money that is contributed to the family's general funds. A bread-and-butter rug to pay

TABLE 12.3

WEAVERS' AGE AND CLASSIFICATION

	AGE IN YEARS, 1981						TOTALS
	-16	17-25	26-35	36-45	46-60	60+	
Professional	0	0	0	2	5	2	9
Household	2	0	7	6	23	12	50
Household or Occasional	0	4	4	4	8	7	27 ^a
Occasional	2	9	9	11	11	5	47
Revival	0	1	1	0	0	0	2
Learning	6	7	1	0	0	0	14 ^b
TOTALS	10	21	22	23	47	26	149 ^c

^aThere were 28 household or occasional weavers of unknown age in addition to these 27. Thus, this total of 27 represents 49 percent of the known household or occasional weavers.

^bThere were four additional women of unknown age who were learning to weave. The total of 14 represented 78 percent of the total known learning weavers.

^cThe number of weavers in this sample is 149, representing 82.3 percent of the total number of female weavers identified at Kinlichee (181). A chi-square test for independence of the variables is not appropriate for these data because the expected frequencies in more than 20 percent of the cells is less than five. If the columns are collapsed to those weavers under 35 and those over 36, the test shows significance at the .01 reliability level ($X^2 = 45.85$ with five degrees of freedom, when significance at .01 is shown at $X^2 = 15.09$).

bills at the trading post will be considerably different from a commissioned item which, in turn, may differ from something created for the pure pleasure of weaving. At Hubbell Trading Post the range of prices paid to an individual reflects the varying concerns and rug qualities that that particular weaver may have had. One household weaver has sold rugs ranging from \$15 to \$250; another from \$15 to \$330; and yet another from \$15 to \$650.

While the finished product may vary according to individual purpose and commitment, certain household weavers develop characteristic styles in which the quality and designs vary little from rug to rug. Still others seem to alternate regularly, working on a large rug and then, "taking a little rest," proceeding to weave several smaller ones before returning to another substantial project. It is not uncommon to see a weaver working on several looms simultaneously. Rather than a response to specific economic needs, this system provides a relatively steady income, however small.

Most household rugs are sold within the general area, usually in Ganado or Gallup, or occasionally in the Shiprock/Farmington area if the weaver has reliable transportation. Of the 35 classifiable Kinlichee weavers who sold rugs to Hubbell's during 1980, 20 were household weavers. A rug-selling trip is often incorporated with other in-town errands. As soon as a rug is finished it is generally taken to the trader by the weaver herself. Records at Hubbell's show that at least two weavers often sell two small rugs on a single visit. Sometimes three inexpensive rugs are sold together. This, however, is not common practice for most weavers.

Occasionally another family member will make the sale. Household weavers occasionally receive commissions, although these are usually small compared to those handled by professional weavers. Tourists, Public Health Service and tribal employees, and other bilagaana on the reservation provide patronage of these weavers of middle-priced rugs. Occasionally another Navajo will ask a weaver to make a rug, either for cash, trade or in repayment of some previous obligation.

Occasional Weavers

This is a group of women who weave intermittently and who generally make smaller, less elaborate rugs. Lacking a commitment to weaving as even a part-time occupation, occasional weavers may only produce one or two rugs in their lifetime, or they may weave sporadically through life, never practicing enough to acquire the automatic skills that household and professional weavers possess.

Certainly women who learned to weave but never steadily pursued the craft existed in the past, yet the literature on Navajo weaving does not deal with this group, probably because it does not represent a typical sort of weaver. With idealistic statements such as "Nearly all Navajos are artists and spend a large part of their time in artistic creation . . . The non-artist among the Navajo is a rarity" (Witherspoon 1977:152-153), it has been difficult to recognize the disinterested or mediocre craftspeople who nevertheless try their hand at weaving for a time.

A minimum of 47 of Kinlichee's 149 classifiable weavers belong in this category (Table 12.2). There are roughly the same

number of occasional weavers in each age group over the age of 17 and under 60, indicating that no cumulative experience is required to become an occasional weaver (Table 12.3). It is likely that the low count in the group over 60 is due to sampling error (that is, fewer older non-weavers were interviewed in 1979-1982 than non-weavers or occasional weavers in the younger groups).

Because there is money to be secured from the sale of any rug, however modest, a few women persist in occasional weaving for economic reasons, even when, as one woman spoke of another, "her heart is not in it." For those who weave with difficulty, periods between rugs may be long, but when money is needed and jobs are difficult to find, rugweaving can provide a source of income.

For other women, occasional weaving represents a link to their native heritage as well as economic gain. They want to weave just as the women in their families have always woven, but other priorities such as a family, school or employment do not allow for the time commitment that steady weaving requires. Often these women begin to weave without understanding the amount of work it requires. They soon are disillusioned with their progress and discontinue their work at the loom.

Women who pursue weaving on a more or less casual basis use commercial yarns and dyes to advantage. Furthermore, these occasional weavers are the ones who benefit most from weaving classes offered on the reservation. Often over twenty, with families of their own, these women missed the opportunity to learn from their families because of early marriage, school or employment. Workshops

given at the chapter house and classes offered at Navajo Community College, Northland Pioneer College and reservation high schools cover the basics that allow one to make a small rug. Weaving as part of the native heritage is emphasized in some of the classes: "It is an art that meant not only wealth to the Navajo but religion and culture as well," writes Isabell Deschinny in an essay for the NCC introductory class. These semi-formalized lessons indicate an interest by certain segments of the Navajo population who have left traditional lifestyles. A mother who works full-time and lives "in town" with her young family took time for an evening weaving class. She has aspirations of going "back to my land," saying: "When I learn this I'm going to stay home next summer and get all of my kids together and I'm just going to weave." In reality, she is probably an occasional weaver.

Occasional weavers sell their throw rugs, pillow covers, dresser scarves and other small items at trading posts in Gallup where the market can absorb a wide range of quality. Often the major part of a rug's value will be paid in trade--groceries, soft drinks and other sundries. Rugs are also used to pay off debts at stores where credit is still available. While certain household and professional weavers will travel from post to post in search of a high bid, occasional weavers generally take the first offer without extended bargaining.

Professional Weavers

The few at the top are highly motivated women who are extremely skilled in their craft and have a finely tuned sense of

design. Weaving is generally placed ahead of other roles and represents considerable income. Being a professional requires considerable experience; it also presumes a certain amount of time freed from a Navajo woman's typically busy schedule, usually after the family is raised and others are able to tend to household and livestock matters.

Only 9 of the 183 Kinlichee weavers could be classified as professionals (Table 12.2). The youngest was 44 in 1981, with the group having a mean age of 55 and a range from 44 to 68 (Table 12.3).

The existence of the professional weaver appears to be a relatively recent phenomenon, a product of the post-World War II Indian arts and crafts boom, but there are historic precedents. At the turn of the century, J.L. Hubbell hired women to weave at his Ganado trading post, and other traders such as J.B. Moore at Crystal, New Mexico, commissioned weavers to undertake special projects. In the 1930s Reichard (1936:1) noted the then rare case of incipient professionalism:

If the family needs the money secured for the rugs, if one of the women is a recognized artist, if circumstances are such that her labor may be spared from other necessary pursuits, she may be given the leisure to weave and is required to do little else. All these conditions are filled in only a few cases.

It was not, however, until the 1950s and 1960s when interest in Navajo rugs as collectors' items and as fine art began to soar that individual weavers became professional in the sense used here--earning a living from the craft and devoting considerable amounts of time to it.

These women today are known by name in rug collecting circles (normally a Navajo's name is not politely used in the presence of its owner, much less widely publicized). Unlike the names of potters and painters which became important components of Indian artwork in the early 1920s (Brody 1976b:75-76), weavers' names have been recorded consistently by traders and collectors only in the last few decades. A more recent phenomenon, initiated by a professional Kinlichee weaver at Hubbell's Trading Post, is the practice of weaving one's initials and date into the borders of a rug. Historically neither blankets nor rugs were ever "signed" by their makers. This is a remarkable departure from the past, reflecting the bilagaana's taste for signed art, but also signaling increased self-recognition and pride of the weaver.

"She weaves all the time; she makes her living at it," is often said of professional weavers, although these women, too, have other responsibilities. As in Reichard's example quoted above, family members may be more willing to share the weaver's chores if she is professionally-oriented and her rugs bring considerable money into the household. Whereas the household weaver integrates weaving into her full round of activities, the professional gives her craft-work top priority and relegates other duties to family members whenever possible.

Now as in earlier times, most weaving is done in or around the home. Working outdoors in the shade is common in good weather. Some weavers use a separate shed, unoccupied hogan or other small building in their camp in which to set up their loom (or looms) and

to store weaving supplies. This is particularly true of professional weavers who often have large looms and supplies in quantity, and who require studio space. Upon receiving a very large commission, one Kinlichee weaver had her husband build a two-story shed to accommodate her immense loom. After the six-month project was completed, the shed was transformed into a storage house for farm equipment and supplies.

Professional weaving does not necessarily preclude work outside the home. Three high-caliber Kinlichee weavers are employed as craft demonstrators and commissioned weavers at Hubbell Trading Post where they earn a minimum wage. All weave on large looms at home during weekends, evenings and days off. They clearly derive great pleasure from their work in addition to the monetary payments they receive. Others from Kinlichee have worked at Hubbell's in the past. One woman in her forties stopped working there and discovered that she is able to earn as much, if not more, by weaving commissions at home and demonstrating at museums where she is periodically hired. Several other women retired from Hubbell's weaving room as they grew older. Each is still weaving at home, although with reduced output.

Dealers and private collectors often approach these weavers directly, buying rugs straight from the loom. Thus, marketing techniques for professional weavers are more closely linked to the off-reservation world and often circumvent the traditional trading post system. Such weavers take commissions and often require a deposit on large and expensive projects. Some weavers keep waiting

lists of their customers, and can command premium prices. Although I know of only one, a Navajo weaver with a printed business card is a notable example of enterprise in marketing. Included on the card is the slogan "All Different Kinds of Rugs, Custom Made," and a tiny drawing of a weaver seated at her loom.

The professional weaver is gaining bilagaana-valued business and marketing skills, as well as complying with the taste of her customers. At the same time, she is able to capitalize on her position as a native craftsperson producing a distinctive handwoven artifact.

Revival Weavers

There are a few weavers on the reservation who are learning or continuing to weave good rugs exclusively for the sake of tradition, "so it is around for my grands [grandchildren] to appreciate." Although a minority, these women and their families are aware of current changes in Navajo life and are conscious of a need to preserve their native heritage. Weaving serves as a link to past lifeways, to a former closeness with the sheep herd, with native plant uses, with the land, and with elementary ways of making a living. Only a few far-sighted Navajo women can afford to weave solely for the maintenance of the tradition, with little or no economic motivation. There are between one and three Kinlichee weavers who are motivated principally by revival interests, although there are others in nearby areas and elsewhere on the reservation. Reichard notes a related phenomenon in the 1930s:

Among the thousands of craftswomen in the tribe there is a generous proportion of real artists. These, I am convinced, would weave if they were never paid a cent for their work. (1936:27).

"Spider Woman gave this weaving to my people and I should keep on doing it," says one weaver in her 60s, living in an area adjacent to Kinlichee. She reported that in her life she had only sold one of her rugs to a trader, the rest having been collected and saved by her family. "Sometimes we pay her for the rugs, but mostly she just gives them to us," says her daughter who has a teaching job and no time for weaving herself. She and her siblings consider their mother's weaving to be very important, a dying art that is part of their own family identity. When one rug was sold to a local trader (because the weaver became curious about how much her rugs were worth in dollars and cents), her son was perturbed, telling her that he would have gladly bought the rug instead; then they could have kept it "in the family investment."

A young mother who holds a professional job in the health sciences attempts to continue her weaving during spare time because "my daughters should know how to do it." In order to preserve the heddle set-up for twill and two-faced rugs, with the help of her elderly mothershe has constructed a sampler from which her daughters will be able to reconstruct the techniques. There are three pre-teenage girls in the family, two of whom have already tried their hand at little looms. Now living in a modern-style housing development some distance from Kinlichee, this woman believes that her children should know something about Navajo history and traditional culture. They visit their Kinlichee relatives and land on weekends

and vacations. In her own occupation as counselor, she knows that knowledge of one's ethnic background strengthens a person's identity and she suspects that it may help to avoid problems of being between cultures--alcoholism, marital problems, child abuse, job failure. While she sells her rugs for the best prices she can obtain at trading posts in Gallup, Farmington, Shiprock and Albuquerque, it is clear that, with two full-time professionals in the family (her husband works for the Navajo tribe), money is not the most important matter. This woman is part of a small, but perhaps growing group of weavers.

Summary

Four specific yet interrelated types of weavers have been recognized at Kinlichee, reflecting the varying intensity and motives exhibited towards weaving at the present time.

The four weaving categories represent approaches through which weaving survives on the Navajo Reservation in the midst of the modern world. The only group with clear historical precedents is the household weavers who carry on much as weavers have since at least the nineteenth century. Occasional weavers are not adequately described in the literature of the nineteenth or twentieth centuries, yet surely there have always been such weavers among the Navajo. More than a few of their modest rugs survive in museum and private collections today. This, then, is a newly described but probably not newly formed group. Professional and revival weaving appear to be more recent developments, although there is

foreshadowing of both in the women employed by Hubbell and other traders at the turn of the century, and in the reproduction and regional styles which developed from a combination of traders' influence and weavers' ingenuity.

CHAPTER 13

CONCLUDING REMARKS

In the foregoing chapters we have seen how weaving fits into the greater context of contemporary Navajo life, even as that life is undergoing change. The original and accomplished goal of this study was the documentation of the variability found in modern weaving in a single reservation community. In the process, aspects of both continuity and change have been discovered.

How does weaving of today compare to that of the 1930s and 1940s when Reichard (1934, 1936) and Anderson (1951) conducted their studies of reservation weaving? From the preceding chapters, we can conclude that although increased diversity exists, with more resources from which to learn, a larger variety of raw and processed materials, a wider choice of designs, and a broader national and international market, there are decidedly fewer women who weave and even fewer who are beginning to learn. The identification of weaving with the modern roles and responsibilities of Navajo women is weakening, as are the traditional religious connections to the craft. The generation gap between more traditional parents and their acculturating offspring is a significant difference. Few of today's weavers are able to compete on an economic basis with the increased emphasis on wage-paying jobs and with the value of a school education.

Despite these contrasts, points of continuity with the past also exist. We have seen that the products of the loom relate technically to those of earlier times. Weaving continues to be a home-oriented occupation despite some of its newfound sophistication. It continues to demand patience and practice if good quality rugs are to result. Certain women continue to value the traditional traits of self control, productivity, creativity, harmony and balance, which weaving has always engendered in its best practitioners.

As cited in Chapter 1, Adair (1959:100-101) predicted that few young women would learn to weave because they could not "afford to do so." Kent (1961:41) similarly anticipated that weaving would become "no longer a factor of economic importance." Twenty years later, were they correct? When they made their statements, both Adair and Kent were working prior to the Indian arts and crafts boom of the 1960s and 1970s, through which products of the Navajo loom gained national and worldwide recognition. Weavers began to command better prices for their work. Neither could have foreseen the enormous increase in notice and value that Navajo rugs have received in the past two decades. Neither could they have known of the terrific unemployment problems which have developed in recent years and which have influenced a number of younger weavers to learn the relatively self-sufficient art of weaving.

From the data presented in the preceding chapters, we can conclude that a considerable number of women weave in part because of these unforeseen circumstances. Sales records at Hubbell Trading

Post show that certain individuals are able to earn a reasonable portion of their household income through weaving. The same records also indicate that a large number of women weave actively although their receipts are considerably less. A number of these women report that they weave regardless of the pay because it is at least preferable to being unemployed. Not all of these people make excellent or even good quality rugs.

Kent accurately described the evolution of a small elite group of highly skilled craftswomen who would command excellent prices from museums and private collectors. The data presented here bears this out. Professional weavers, although a relative minority, represent a notable trend. The increased occurrence of commissioned works and special orders is a related phenomenon.

Adair, Kent and others have emphasized the economic and commercial nature of Navajo weaving. What about other motivations? The present study has shown that many of the older generation weave not solely because of their rugs' sale values, but because "all Navajo women are supposed to weave," that is, because weaving is ideally an integral part of these Navajo women's roles as homemakers, mothers and wives. While not all members of the younger generation have the traditional lifestyles which many of their mothers maintain, some reflectively recognize the value of weaving as an ethnic identifier, as a symbol of their Navajo heritage. Women of all ages, as Kent also notes in a later article (1976:95), may also weave for the sheer enjoyment of the creative process.

Some at Kinlichee definitely consider weaving to be an expressive art form.

In this study, I have attempted to demonstrate the utility of examining a native craft in ethnographic context. The approach has allowed the revision of earlier normative statements such as "All Navajo women are artful weavers," or "Only women weave," or "Navajo weaving is dying." It has also provided the detailed background for understanding change on an individual level, as a response both to acculturative processes and to individual motivations.

Because no formal examination of Navajo weaving in cultural context, much less with reference to acculturation, has been produced since Reichard's and Anderson's work, the task of documenting contemporary weaving has been all the more challenging. Moreover, because of the accelerating rate of change on the reservation today, such a study has become all the more urgent. It has seemed essential to document the variety of processes and associated contexts first, before moving into more theoretical or topical arenas. Such a descriptive survey has not allowed for detailed analytical treatment of any specific aspect of weaving. Now that the groundwork has been laid, a number of problem-oriented themes beyond the scope of the present work may be investigated in future research. Current anthropological interests in cultural ecology, economics and economic rationality, entrepreneurs and cultural brokerage, network analysis, ethnic boundary maintenance, communications theory, and ethnoaesthetics, to name only a few, all provide opportunities for the analysis of weaving data.

As to the future of Navajo weaving itself, nothing is assured. Navajo culture has proven its ability to incorporate new information and materials repeatedly, while retaining an identifiable, characteristically Navajo core (cf. Vogt 1961). Weaving, as we have seen, contains both elements of continuity with tradition and an inherent flexibility. Weavers during the past century have responded to significant lifestyle changes, to market shifts, and to the availability of different materials. Contemporary weaving represents a wide range of purposes and quality. This range allows for continuing adaptation in the future. Some modern weavers retain a vitality and purpose which may yet be carried for generations.

REFERENCES CITED

- Aberle, David F.
1961 The Navajo. In Matrilineal Kinship. David M. Schneider and Kathleen Gough, eds. pp. 96-201. Berkeley, CA: University of California Press.
- 1966 The Peyote Religion among the Navaho. Viking Fund Publications in Anthropology, 42. New York: Wenner-Gren Foundation.
- 1969 A Plan for Navajo Economic Development. In Toward Economic Development for Native American Communities. Compendium of papers submitted to the Subcommittee on Economy in Government of the Joint Economic Committee of the U.S. Congress. Washington, DC: U.S. Government Printing Office.
- Adair, John
1944 The Navajo and Pueblo Silversmiths. Norman, OK: University of Oklahoma Press.
- Adams, William Y.
1963 Shonto: A Study of the Role of the Trader in a Modern Navaho Community. Bureau of American Ethnology Bulletin 188. Washington, DC: U.S. Government Printing Office.
- Amsden, Charles
1934 Navaho Weaving: Its Technic and History. Santa Ana, CA: Fine Arts Press. (Reprinted by Rio Grande Press, Glorieta, NM, 1972).
- Anderson, Lowell E.
1951 Factors Influencing Design in Navajo Weaving. Master's thesis, Department of Decorative Art, University of California, Berkeley, CA.
- Arizona Highways
1974 Special Issue on Southwest Indian Weaving. Arizona Highways 50(7).
- Bailey, Flora Louise
1950 Some Sex Beliefs and Practices in a Navaho Community. Papers of the Peabody Museum of Archaeology and Ethnology 40 (2). Cambridge, MA: Harvard University.

- Bailey, Lynn R.
1980 If You Take My Sheep: The Evolution and Conflicts of Navajo Pastoralism, 1630-1868. Pasadena, CA: Westernlore Publications.
- Barnouw, Victor
1973 Culture and Personality. Revised edition. Homewood, IL: The Dorsey Press.
- Bartlett, Katherine
1950 Present Trends in Weaving on the Western Reservation. Plateau 23(1):1-6.
- Bascom, William
1969 Creativity and Style in African Art. In Tradition and Creativity in Tribal Art. Daniel Biebuyck, ed. pp. 98-119. Berkeley, CA: University of California Press.
- Bennett, Don, and Anthony Berlant, Tom Wheeler, and Mark Winter
1981 Collecting Navajo Weaving: A Panel Discussion. Four Winds 2(2):26-29.
- Bennett, Kathleen Whitaker
1979 Accurate Documentation is Fundamental to a Good Native American Research Collection. Paper presented at the New Directions in Native American Art conference, October 24-26, 1979, Albuquerque, NM.

1981 Navajo Chief Blanket: A Trade Item Among Non-Navajo Groups. American Indian Art Magazine 7(1):62-69.
- Bennett, Noel
1973 Genuine Navajo Rug--Are You Sure? Santa Fe, NM: Museum of Navaho Ceremonial Art and the Navajo Tribe.

1974 The Weaver's Pathway: A Clarification of the "Spirit Trail" in Navajo Weaving. Flagstaff, AZ: Northland Press.

1979 Designs with the Wool: Advanced Navajo Weaving Techniques. Flagstaff, AZ: Northland Press.

1980 Navajo Weaving: From the Inside Out. Four Winds 1(2):17-25.
- Bennett, Noel, and Tiana Bighorse
1971 Working with the Wool: How to Weave a Navajo Rug. Flagstaff, AZ: Northland Press.
- Berlant, Anthony, and Mary Hunt Kahlenberg
1977 Walk in Beauty: The Navajo and Their Blankets. Boston, MA: New York Graphic Society.
- Biebuyck, Daniel P., ed.
1969 Tradition and Creativity in Tribal Art. Berkeley, CA: University of California Press.

- Bingham, Sam, and Janet Bingham
1976 Navajo Chapters Government Handbook. Chinle, AZ: Rock Point Community School.
- Blanchard, Kendall A.
1977 The Economics of Sainthood: Religious Change among the Rimrock Navajos. London: Associated University Presses.
- Blunn, C.T.
1940 Improvement of the Navajo Sheep. Journal of Heredity 31:99-112.
- Boas, Franz
1927 Primitive Art. Oslo: H. Aschehour (Instituttet for Sammenligende Kulturforskning, pub. ser. B, skifter 8). (Reprinted by Dover, New York, in 1955).
- Boles, Joann Ferguson
1977 The Development of the Navaho Rug, 1890-1920, As Influenced by Trader J.L. Hubbell. Ph.d dissertation, Ohio State University.
- Brody, J.J.
1976a Between Traditions: Navajo Weaving Toward the End of the Nineteenth Century. Iowa City: University of Iowa Art Museum.

1976b The Creative Consumer: Survival, Revival, and Invention in Southwest Indian arts. In Ethnic and Tourist Arts. Nelson H.H. Graburn, ed. pp.70-84. Berkeley, CA: University of California Press.
- Brugge, David
n.d. Transcripts of taped interviews with Navajo people. Hubbell Trading Post, Ganado, Arizona.
- Bryan, Nonabah G., and Stella Young
1940 Navajo Native Dyes: Their Preparation and Use. Washington, DC: United States Department of the Interior, Bureau of Indian Affairs, Department of Education.
- Bulow, Ernest L.
1972 Navajo Taboos. Navajo Historical Publications, Cultural Series, No. 1. Window Rock, AZ: Navajo Tribal Museum.
- Bunzel, Ruth
1969 The Pueblo Potter, New York: Columbia University Press.
- Cerny, Charlene
1975 Navajo Pictorial Weaving. Santa Fe, NM: The Museum of New Mexico.

- Coolidge, Dane and Mary Roberts Coolidge
1930 The Navajo Indians. Boston, MA: Houghton, Mifflin.
- Cotton, Clinton N.
1896 Wholesale Catalogue and Price List of Navajo Blankets.
Gallup, NM: C.N. Cotton.
- 1920 (circa) Indian Traders' Supplies and Navajo Blankets. Sales catalogue. Gallup, NM: C.N. Cotton Co.
- 1925 (circa) The Use of Navajo Blankets as a Home Decoration. Sales catalogue. Gallup, NM: C.N. Cotton Co.
- Dedera, Don
1975 Navajo Rugs: How to Find, Evaluate, Buy and Care for Them. Flagstaff, AZ: Northland Press.
- Downs, James F.
1972 The Navajo. New York: Holt, Rinehart and Winston, Inc.
- Dutton, Bertha P.
1961 Navajo Weaving Today. Santa Fe, NM: Museum of New Mexico Press.
- Elmer, Wilma
1980 Navajo Rugs. Scottsdale, AZ: Carlos Elmer.
- Emery, Irene
1966 The Primary Structures of Fabrics. Washington, D.C.: The Textile Museum.
- Emery, Irene, and Patricia Fiske
1977 Ethnographic Textiles of the Western Hemisphere. Irene Emery Roundtable on Museum Textiles 1976 Proceedings. Washington, DC: The Textile Museum.
- Erickson, Jon T., and H. Thomas Cain
1976 Navajo Textiles from the Read Mullan Collection. Phoenix, AZ: Heard Museum.
- Faich, Ron
1981 Summary Results of the 1980 Census in Navajo Tribal Chapters within the Navajo Reservation. Unpublished manuscript, Library of Economic Development, Navajo Tribal Offices, Window Rock, AZ.
- Firth, Raymond
1951 The Social Framework of Primitive Art. In Elements of Social Organization. pp. 155-182. Boston, MA: Beason Press.
- Fishler, Stanley A.
1953 In the Beginning: A Navajo Creation Myth. University of Utah Anthropological Papers, No. 13. Salt Lake City, UT.

- Forrest, Earle R.
1970 With a Camera in Old Navajoland. Norman, OK: University of Oklahoma Press.
- Franciscan Fathers
1910 An Ethnologic Dictionary of the Navaho Language. St. Michaels, AZ: Franciscan Fathers.
- Freed, Stanley A. and Ruth S. Freed
1970 A Note on Regional Variation in Navajo Kinship Terminology. American Anthropologist 72:1439-1443.
- Frisbie, Charlotte
1981 Traditional Navajo Women: Ethnographic and Life History Portrayals. Paper presented at the annual meeting of the American Anthropological Association, December 2-6, 1981, Los Angeles, CA.
- Gallagher, Marsha
1981 The Weaver and the Wool: The Process of Navajo Weaving. Plateau 52(4):22-27.
- Gillmor, Frances, and Louisa Wade Wetherill
1934 Traders to the Navajo: The Story of the Wetherills of Kayenta. Albuquerque, NM: University of New Mexico Press.
- Gilpin, Laura
1968 The Enduring Navajo. Austin, TX: University of Texas Press.
- Gould, Arch H.
1982 Weaving---Whither Bound: The Patron's Role in the Future of Navajo Weaving. Unpublished paper presented at the Second Shared Horizons conference, May 9-13, 1982, Santa Fe, New Mexico.
- Graburn, Nelson H.H.
1969 Art and Acculturative Processes. International Social Science Journal 21:457-468.
- Graburn, Nelson H.H., ed.
1976 Ethnic and Tourist Arts: Cultural Expressions from the Fourth World. Berkeley, CA: University of California Press.
- Grandstaff, James O.
1942 Wool Characteristics in Relation to Navajo Weaving. Department of Agriculture Technical Bulletin, No. 790.
- Hackett, Charles W.
1937 Historical Documents Relating to New Mexico, Nueva Vizcaya, and Approaches Thereto, to 1773. 3 volumes. Washington, D.C.: Carnegie Institution.

- Halloran, Arthur F.
1964 The Mammals of Navajoland. Window Rock, AZ: Navajo Tribal Museum.
- Hamamsy, Laila Shukry
1957 The Role of Women in a Changing Navajo Society. American Anthropologist 59:101-111.
- Hamum, Alberta Pierson
1945 Spin a Silver Dollar. New York: Viking Press.

1958 Paint the Wind. New York: Viking Press.
- Harcourt, Raoul d'
1962 Textiles of Ancient Peru and their Techniques, Grace G. Denny and Carolyne M. Osborne, eds. Seattle, WA: University of Washington Press.
- Haselberger, Herta
1961 Method of Studying Ethnological Art. Current Anthropology 2(4):341-384.
- Hassell, Sandy
1955 Navaho Rugs. Unpublished manuscript, University of Colorado Museum, Boulder, CO.
- Hatcher, Evelyn Payne
1974 Visual Metaphors: A Formal Analysis of Navajo Art. The American Ethnological Society Monograph 58. St. Paul, MN: West Publishing Co.
- Hegemann, Elizabeth Compton
1963 Navajo Trading Days. Albuquerque, NM: University of New Mexico Press.
- Helm, June, ed.
1966 Essays on the Verbal and Visual Arts. Proceedings of the 1966 Annual Spring Meeting of the American Ethnological Society. Seattle, WA: University of Washington Press.
- Herskovits, Melville J.
1959 Art and Value. In Aspects of Primitive Art. Pp. 41-68. New York: University Publishers for Museum of Primitive Art.
- Hill, Willard W.
1935 The Status of the Hermaphrodite and Transvestite in Navaho Culture. American Anthropologist n.s. 37:273-279.

1940 Some Navaho Culture Changes during Two Centuries. (With a translation of the early eighteenth century Rabal Manuscript). In Essays in Historical Anthropology of North America, Smithsonian Miscellaneous Collections, Vol. 100, pp. 395-415.

- Hobson, Richard
 1954 Navaho Acquisitive Values. Papers of the Peabody Museum of Archaeology and Ethnology 42. Cambridge, MA: Harvard University Press.
- Hoffman, Virginia, and Hoke Denetsosie
 1979 Lucy Learns to Weave. Rough Rock, AZ: Navajo Curriculum Center Press.
- Hollowell, Betty Barham
 1948 Development and Use of Native Dyes in Navajo Rug Craft. Master's thesis, Department of Household Arts, Oklahoma Agricultural and Mechanical College.
- Hubbell, J.L.
 1910 Navajo Blankets and Indian Curios, Catalogue and Price List. Ganado, AZ: Hubbell Trading Post.
- Indian Arts and Crafts Association
 n.d. Application for Membership. Albuquerque, NM: Indian Arts and Crafts Association.
- James, George Wharton
 1920 Indian Blankets and Their Makers. Chicago, IL: A.C. McClurg. (Reprinted by Dover, New York, 1974).
- James, H.L.
 1976 Posts and Rugs: The Story of Navajo Rugs and Their Homes. Globe, AZ: Southwest Parks and Monuments Association.
- Johnston, Dennis Foster
 1966 An Analysis of Sources of Information on the Population of the Navaho. Bureau of American Ethnology Bulletin 197. Washington, DC: U.S. Government Printing Office.
- Kahlenberg, Mary Hunt, and Anthony Berlant
 1972 The Navajo Blanket. Los Angeles, CA: Praeger Publishers.
- Kandarian, Sally, and Lisa Kandarian
 1977 Restoring Navajo Blankets. In Navajo Weaving Handbook. Editors of El Palacio, eds. pp. 61-70. Santa Fe, NM: Museum of New Mexico Press.
- Kent, Kate Peck
 1961 The Story of Navaho Weaving. Phoenix, AZ: The Heard Museum.
- 1976 Pueblo and Navajo Weaving Traditions and the Western World. In Ethnic and Tourist Arts, Nelson H.H. Graburn, ed. pp. 85-101. Berkeley, CA: University of California Press.
- 1981 From Blanket to Rug: The Evolution of Navajo Weaving After 1880. Plateau 52(4):10-21.

- King, Rosalie R., and Richard Bisbee
 1980 Preservation of Navajo Woven Textiles: Care and Cleaning
 Procedures for Rugs and Blankets. Technology and Conservation
 5(1):40-43.
- Kluckhohn Clyde, and Dorothea Leighton
 1946 The Navajo. Cambridge, MA: Harvard University Press.

 1974 The Navajo. Revised edition. Cambridge, MA: Harvard
 University Press.
- Kroeber, Alfred L.
 1944 Configurations of Culture Growth. Berkeley: University of
 California Press.
- Lacy, Barbara
 1978 Nanise':A Navajo Field Guide to 100 Reservation Species.
 Unpublished manuscript, Navajo Health Authority, Window Rock,
 AZ:
- Lamphere, Louise
 1977 To Run After Them: Cultural and Social Bases of Cooperation
 in a Navajo Community. Tucson, AZ: University of Arizona Press.
- Leighton, Dorothea, and Clyde Kluckhohn
 1947 Children of the People. Cambridge, MA: Harvard University
 Press.
- Lenor Larsen, Jack
 1976 The Dyer's Art: Ikat, Batik, Plangi. New York: Van Hastrand
 Reinhold.
- Levy, Jerrold
 1962 Community Organization of the Western Navajo. American
 Anthropologist 64:781-801.
- Levy, Jerrold E., and Stephen J. Kunitz
 1974 Indian Drinking: Navajo Practices and Anglo-American
 Theories. New York: John Wiley and Sons.
- Linton, Ralph
 1941 Primitive Art. Kenyon Review 3:34-51.
- Lowe, Charles H.
 1964 Arizona's Natural Environment. Tucson, AZ: University of
 Arizona Press.
- Marriott, Alice, and Carol K. Rachlin
 1968 American Indian Mythology. New York: Mentor.

Matthews, Washington

1884 Navajo Weavers. Third Annual Report of the Bureau of American Ethnology, 1881-1882. Pp. 375-391. Washington, DC: Government Printing Office.

1891 Navajo Dye Stuffs. Smithsonian Institution Annual Report. Pp. 613-615. Washington, DC: Government Printing Office.

1900 A Two-Faced Navaho Blanket. American Anthropologist n.s. 2:638-642.

1904 The Navaho Yellow Dye. American Anthropologist n.s. 6:194.

Maxwell, Gilbert S.

1963 Navajo Rugs: Past, Present and Future. Palm Desert, CA: Best-West Publications.

Mayes, Vernon, and Russell Balda, Garnet Draper, Francis Draper, Sadie Johnson, and Edith Mike

1977 Birds of Navajoland. Window Rock, AZ: Navajo Tribal Museum.

McAllester, David P.

1954 Enemy Way Music: A Study of Social and Esthetic Values as seen in Navaho Music. Papers of the Peabody Museum of Archaeology and Ethnology 41(3). Cambridge, MA: Harvard University Press.

McGreevy, Susan

1981 Navajo Sandpainting Textiles at the Wheelwright Museum. American Indian Art Magazine 7(1):54-61.

McNitt, Frank

1962 The Indian Traders. Norman, OK: University of Oklahoma Press.

Mera, Harry Percival

1948 Navajo Textile Arts. Santa Fe, NM: The Laboratory of Anthropology.

1949 The Alfred I. Barton Collection of Southwestern Textiles. Santa Fe, NM: San Vicente Foundation, Inc.

1975 Navajo Textile Arts. 2nd edition. Roger and Jean Moss, eds. Santa Barbara, CA: Peregrine Smith.

Mera, Harry Percival, and Joe Ben Wheat

1978 The Alfred I. Barton Collection of Southwestern Textiles. 2nd edition. Joe Ben Wheat, ed. Coral Gables, FL: Lowe Art Museum.

Merry, Edward S.

1960 So You Want to Buy a Navajo Rug? Gallup, NM: Inter-Tribal Indian Ceremonial Association.

Mills, George

- 1959 Navajo Art and Culture. Colorado Springs, CO: The Taylor Museum of the Colorado Springs Fine Arts Center.

Mitchell, Frank

- 1978 Navajo Blessingway Singer: The Autobiography of Frank Mitchell, 1881-1967. Charlotte J. Frisbie and David P. McAllester, eds. Tucson: University of Arizona Press.

Moore, J.B.

- 1909 Fine Navajo Blankets. Sales catalogue. Crystal, NM: Crystal Trading Post.

- 1911 The Navajo. Sales catalogue. Crystal, NM: Crystal Trading Post.

Moss, Roger, and Jean Moss

- 1975 Afterword. In Navajo Textile Arts, by H.P. Mera. 2nd edition. Roger and Jean Moss, eds. pp. 104-121. Santa Barbara, CA: Peregrine Smith.

Navajo Community College

- 1980 General Catalog, 1980-81. Tsaile, AZ: Navajo Community College.

Navajo Tribe

- 1974 The Navajo Nation Overall Economic Development Program. Window Rock, AZ: Office of Program Development, The Navajo Tribe. July 1974.

- 1979 The Navajo Nation Overall Economic Development Program, 1979 Annual Progress Report. Window Rock, AZ: Division of Economic Development, The Navajo Tribe. November 1979.

- 1980 The Navajo Nation Overall Economic Development Program, 1980 Annual Progress Report. Window Rock, AZ: Division of Economic Development, The Navajo Tribe. October 1980.

- 1981 The Navajo Nation Overall Economic Development Program, 1981 Annual Progress Report. Window Rock, AZ: Division of Economic Development, The Navajo Tribe. April 1981.

- 1982 The Navajo National Overall Economic Development Program, 1982 Update. Window Rock, AZ: Division of Economic Development, The Navajo Tribe. November 1982.

Navajo Tribe, Indian Health Service, Bureau of Indian Affairs, Arizona State Employment Service, Office of Navajo Economic Opportunity.

- 1972 Navajo Manpower Survey. Window Rock: AZ: Navajo Manpower Survey Task Force, The Navajo Tribe.

Newcomb, Franc Johnson

1940 Navajo Omens and Taboos. Santa Fe, NM: Rydal Press.

1964 Hosteen Klah: Navaho Medicine Man and Sand Painter. Norman, OK: University of Oklahoma Press.

O'Bryon, Aileen

1956 The Dine Origin Myths of the Navajo Indians. Bureau of American Ethnology Bulletin 163. Washington, DC: Smithsonian Institution.

Olson, Alan P.

n.d. Cross Canyon. Unpublished manuscript, Navajo Tribal Museum, Window Rock, AZ.

O'Neale, Lila

1932 Yurok-Karok Basket Weavers. University of California Publications in American Archaeology and Ethnology 32(1).

Otten, Charlotte M., ed.

1971 Anthropology and Art: Readings in Cross-Cultural Aesthetics. New York: Doubleday/Natural History Press.

Pelto, Pertti J., and Gretel H. Pelto

1975 Intra-Cultural Diversity: Some Theoretical Issues. American Ethnologist 2(1):1-18.

Pendleton, Mary

1974 Navajo and Hopi Weaving Techniques. New York: Collier Books.

Pepper, George

1902 The Making of a Navajo Blanket. Everybody's Magazine 5:33-43.

Plog, Fred, and Daniel G. Bates

1976 Cultural Anthropology. New York: Alfred A. Knopf.

Reichard, Gladys

1934 Spider Woman. New York: Macmillan. (Reprinted as Weaving a Navajo Blanket by Dover, New York, 1974).

1936 Navajo Shepherd and Weaver. New York: J.J. Augustin. (Reprinted by Rio Grande Press, Glorieta, NM, 1968).

1939 Dezba, Woman of the Desert. New York: J.J. Augustin.

1970 Navaho Religion: A Study of Symbolism. Princeton, NJ: Princeton University Press.

Rhodes, Willard (recorder)

- 1949 Sioux and Navajo Folk Music. (Album of records). Ethnic Folkways Library, no. 1401, New York.

Roberts, John M.

- 1951 Three Navajo Households: A Comparative Study of Small Group Culture. Papers of the Peabody Museum of Archaeology and Ethnology 40(3). Cambridge, MA: Harvard University Press.

Rodee, Marian

- 1978 Multiple Pattern Germantown Rugs. American Indian Art Magazine 3(3):44-49.

- 1980 Bayeta and the History of Cochineal Dye. Four Winds 1(2):26-29.

- 1981 Old Navajo Rugs: Their Development from 1900 to 1940. Albuquerque, NM: University of New Mexico Press.

Roessel, Robert A., Jr.

- 1977 Navajo Education in Action: The Rough Rock Demonstration School. Chinle, AZ: Navajo Curriculum Center, Rough Rock Demonstration School.

- 1979 Navajo Education, 1948-1978: Its Progress and Its Problems (Navajo History, Volume III, Part A). Rough Rock, AZ: Navajo Curriculum Center, Rough Rock Demonstration School.

Rogoff, Barbara

- n.d. Research Proposal: The Cognitive Consequences of An Everyday Skill. Manuscript in files of the author.

Rowe, Ann P.

- 1977 Warp-Patterned Weaves of the Andes. Washington, D.C.: The Textile Museum.

Ruffing, Lorraine Turner

- 1976 Navajo Economic Development Subject to Cultural Constraints. Economic Development and Cultural Change 24(3):611-621.

Sapir, Edward

- 1935 A Navaho Sand Painting Blanket. American Anthropologist n.s. 37:609-616.

Sasaki, Tom T.

- 1960 Fruitland, New Mexico: A Navaho Community in Transition. Ithaca, NY: Cornell University Press.

Scarberry, Susan J.

- in press Grandmother Spider's Life Line. In Studies in American Indian Literature. Paula Gunn Allen, ed. New York: MLA Publications.

- Shepardson, Mary, and Blodwen Hammond
1970 The Navajo Mountain Community: Social Organization and Kinship Terminology. Berkeley, CA: University of California Press.
- Silver, Harry R.
1979 Ethnoart. Annual Review of Anthropology 8:267-307.
- Simmons, Katina
1977 Oriental Influences in Navajo Rug Designs. In Ethnographic Textiles of the Western Hemisphere. Irene Emery Roundtable on Museum Textiles 1976 Proceedings. Irene Emery and Patricia Fiske, eds. pp. 445-452. Washington, DC: The Textile Museum.
- Simmons, Pauline
1948 Chinese Patterned Silks. New York: Metropolitan Museum of Art.
- Smith, Dorothy, and Sara Lee
1975 Making a Navajo Sash Belt. Tsa'aszi (The Yucca) 2(1):55-66. Ramah, NM: Pine Hill School.
- Spencer, Katherine
1947 Reflection of Social Life in the Navaho Origin Myth. University of New Mexico Publications in Anthropology, No. 3. Albuquerque, NM: University of New Mexico Press.
- Spicer, Edward H., ed.
1961 Perspectives in American Indian Culture Change. Chicago, IL: University of Chicago Press.
- Steltzer, Ulli
1976 Indian Artists at Work. Seattle, WA: University of Washington Press.
- Stephen, Alexander M.
1930 Navajo Origin Legend. Journal of American Folklore 43:88-104.
- Stewart, Irene
1980 A Voice in Her Tribe: A Navajo Woman's Own Story. Ballena Press Anthropological Papers No. 17. Socorro, NM: Ballena Press.
- Stoller, Irene
1977 The Revival Period in Navajo Weaving. In Ethnographic Textiles of the Western Hemisphere. Irene Emery Roundtable on Museum Textiles 1976 Proceedings. Irene Emery and Patricia Fiske, eds. pp. 453-466. Washington, DC: The Textile Museum.

Tanner, Clara Lee

- 1968 Southwest Indian Craft Arts. Tucson, AZ: University of Arizona Press.

Taylor, Donna

- 1959 Anthropologists on Art. In Readings in Anthropology. Morton Fried, ed. pp. 478-490. New York: Thomas Y. Crowell.

Technology and Conservation

- 1980 Editorial Comment on Preservation of Navajo Woven Textiles, Spring 1980. Technology and Conservation 5(2):35.

Threinen, Ellen

- 1981 The Navajos and the BIA: A Study of Government Buildings on the Navajo Reservation. Window Rock, AZ: Navajo Area Office. Bureau of Indian Affairs, U.S. Department of the Interior.

Underhill, Ruth

- 1944 Pueblo Crafts. Washington, DC: Bureau of Indian Affairs, Division of Education.

- 1956 The Navajos. Norman, OK: University of Oklahoma Press.

U.S. Department of Agriculture

- 1978 Little Colorado River Basin Recreation Site Report, Ganado Recreation Development. U.S. Department of Agriculture, Soil Conservation Service, Forest Service, and Economics, Statistics and Cooperatives Service, in cooperation with the states of Arizona and New Mexico. Unpublished manuscript in the files of the author. September 1978.

Van Valkenburgh, Richard

- 1941 Dine Bikeyah (The Navajo Country). Unpublished manuscript, Navajo Agency, Office of Indian Affairs, Department of the Interior, Window Rock, AZ.

Vogt, Evon Z.

- 1951 Navaho Veterans: A Study of Changing Values. Papers of the Peabody Museum of American Archaeology and Ethnology 41(1). Cambridge, MA: Harvard University.

- 1961 Navaho. In Perspectives in American Indian Culture Change. Edward H. Spicer, ed. pp. 278-336. Chicago, IL: University of Chicago Press.

Walters, Harry

- 1977 Navajo Weaving: From Spider Woman to Synthetic Rugs. Exhibition catalogue. Tsaile, AZ: Navajo Community College.

Wapp, Josephine

- 1977 Weaving a Navajo Rug. In Navajo Weaving Handbook. Editors of El Palacio, eds. pp. 49-60. Santa Fe, NM: Museum of New Mexico Press.

Washburn, Dorothy Koster

- 1977 A Symmetry Analysis of Upper Gila Area Ceramic Design.
Papers of the Peabody Museum of Archaeology and Ethnology 68.
Cambridge, MA: Harvard University Press.

Weltfish, Gene

- 1953 The Origins of Art. New York: Boobs-Merrill.

Wentworth, Edward N.

- 1948 America's Sheep Trails. Ames, IO: Iowa State College Press.

Wheat, Joe Ben

- 1976 Navajo Textiles. In Fred Harvey Fine Arts Collection.
Phoenix, AZ: The Heard Museum.

- 1977 Patterns and Sources of Navajo Weaving. Denver, CO:
Harmsen's Western Americana Collection.

- 1978 Navajo Blankets, Australian Exhibition 1978-79. Netley,
South Australia: Art Gallery of South Australia and the
Australian Gallery Directors' Council Limited.

- 1981 Early Navajo Weaving. Plateau 52(4):2-8.

- n.d. Blanket Weavers of the Southwest: Pueblo, Spanish and
Navajo. Manuscript in progress, files of the author.

Wingert, Paul S.

- 1965 Primitive Art: Its Traditions and Styles. New York: World.

Witherspoon, Gary

- 1977 Language and Art in the Navajo Universe. Ann Arbor, MI:
University of Michigan Press.

Worth, Sol, and John Adair

- 1972 Through Navajo Eyes: An Exploration in Film Communication
and Anthropology. Bloomington, IN: University of Indiana Press.

Wyman, Leland C., and Flora L. Bailey

- 1943 Navaho Upward-Reaching Way: Objective Behavior, Rationale
and Sanction. University of New Mexico Bulletin, Anthropolo-
gical Series 4(2). Albuquerque, NM: University of New Mexico
Press.

Young, Stella

- 1938 Native Plants used by the Navajo. Fort Wingate, NM: Wingate
Vocational High School.

Young, Robert W., compiler

1955 The Navajo Yearbook, Fiscal Year 1955, Report No. 4. Window Rock, AZ: Navajo Agency, Bureau of Indian Affairs, U.S. Department of the Interior.

1961 The Navajo Yearbook, 1951-1961, A Decade of Progress, Report No. 8. Window Rock, AZ: Navajo Agency, Bureau of Indian Affairs, U.S. Department of the Interior.

Young, Robert W., and William Morgan

1981 The Navajo Language: A Grammar and Colloquial Dictionary. Albuquerque, NM: University of New Mexico Press.

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