San Fernando Valley State College

KAYENTA, ARIZONA

The Development of An Urban Center
In a Wilderness Area

A thesis submitted in partial satisfaction of the
requirements for the degree of Master of Arts in
Geography

by

Marlene Temme Roth

June, 1970
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June, 1970
ACKNOWLEDGMENTS

I am deeply appreciative of the cooperation and assistance extended by the numerous people in Kayenta, Window Rock and Tuba City, who in a variety of ways aided immeasurably my research efforts; without their help this thesis would not have been possible.

Special thanks are also due to my thesis committee and especially to its chairman, Mr. David Henderson, who took over the task of reviewing and guiding the preparation of a thesis which had been initiated under the direction of a different committee.

Tribute is also due to my original thesis committee chairman, Dr. H. Roy Merrens, for kindling an interest in scholarship and often unconventional approaches in the quest of knowledge.

While I am grateful to the aforementioned persons and to many others, including Mark and Bertha Roth, Nancy McKune, and Henry Terashita, for their help and contributions to the preparation of this thesis, any omissions or errors remain the fault of this writer.
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ABSTRACT

KAYENTA, ARIZONA

The Development of An Urban Center
In A Wilderness Area

by

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Master of Arts In Geography

June, 1970

The growth of a small urban community in an isolated area, where such an occurrence is an anomaly within the landscape, is a phenomenon worthy of note. In this thesis the growth of such a community, Kayenta, Arizona, is traced from its inception in 1911, as a commercial center, through 1968 when the community exhibited a variety of functions.

Even though the major growth has occurred since 1955, little thought has been given to the planning of the community. Kayenta has experienced rapid, haphazard growth, stimulated by commercial developments and the inputs of government services, without apparent regard to the overall development of the community.

The newer structures in Kayenta, as well as the form
of the town, are reflections of the culture of non-Indian groups. These non-Indian groups include the Anglos living in the area as well as those in government agencies that exert influence from the outside.

This study reveals a great deal of potential for the future development of Kayenta and specifies certain considerations that need to be made, so that the future growth can take advantage of the cultural heritage of the indigenous group, as well as current city planning theory.
INTRODUCTION

Urban geography is traditionally concerned with questions relating to the origins, forms and functions of urban settlement. This thesis is directed to the exploration of these basic questions as they relate to a particular community, Kayenta, Arizona. Kayenta is unique among developments on the Navajo Reservation in that it is not just a trading post site nor is it devoted to the provision of government services. More specifically, the purpose of this thesis is to determine how and why a quasi-urban community developed in a remote area of the Navajo Reservation where the development of such a center would seem highly improbable.

As an expansion of the aforementioned purpose, a number of ancillary questions will be considered. These are: (1) to determine in what ways Kayenta functions as an urban place; (2) to determine the factors behind the origin, growth and function of Kayenta; (3) to determine the impact of the culture of the indigenous group, the Navajo, on the alien, Anglo, form of settlement; (4) to
determine the service area or sphere of influence of Kayenta; and (5) to determine what use, if any, can be made of the data gathered as a part of this study in current and future decision making concerning Kayenta.

The primary research technique employed in this thesis was field work, which consisted of observations and interviews. The field work was accomplished as a result of two trips to Kayenta, Arizona, as well as to other areas of the Navajo Reservation. The first trip into the Navajo Reservation was made on November 23, 24 and 25, 1967, when most of the time was spent in the vicinity of Kayenta. This trip was made in conjunction with a graduate seminar in Anglo-American geography (Geography 572) at San Fernando Valley State College. The second trip, during which most of the field work was completed, took place from April 27, 1968 through May 11, 1968. The writer spent three days in Window Rock, Arizona, and one day in Tuba City, Arizona, the remainder of the field time was utilized for gathering material in and around Kayenta.

Library research was the second data gathering methodology employed, but was rather limited in comparison with the field research. Investigations of the archival records in Tuba City and Window Rock, Arizona, were conducted in conjunction with the above-mentioned field work.
In order to avoid possible misunderstandings, a few terms need to be defined at the outset. Urban refers to an agglomeration of people within a limited area, primarily but not necessarily exclusively, involved in secondary and tertiary activities. Navajo refers to the Navajo Tribe, a sovereign body, recognized by the United States Government in 1868, with regulatory powers over the land reserved for their use, or any member of that tribe. The spelling "Navajo" is used throughout this paper, rather than the sometimes preferred "Navaho", as "Navajo" is the officially accepted spelling used by the Navajo Tribe.

"Anglos" or "Beliganos" is the term generally used by Navajos to refer to all non-Indian groups. Although in practical application it is used primarily to identify whites, Negroes and Mexican-Americans are included in the usage of the term. To varying degrees the term "Anglo" has been adopted, for self reference purposes, by the non-Indian residents of the reservation and surrounding area. It will be utilized in this same sense throughout this paper, appearing without quotation marks.

In general, the words community and town as used in this thesis are interchangeable. The word community, however, generally connotes the inclusion of the inhabitants
and would be similar to the term "urban" as herein defined, whereas town or town-site, for example, would more strictly refer to the developed area or the area so defined by the Navajo Tribe.

The format is historical, in that after an introduction to the area, Kayenta's development is traced chronologically as well as spatially, beginning with an overview of the environment prior to the settlement by Anglos. The growth of the community is presented in a series of significant stages of development, concluding with Kayenta as it existed in 1968. Anticipated future growth is also discussed, as are the associated problems. This study is therefore intended to record the circumstances leading to the development of an individual community, and its relationship to its environment.
CHAPTER 1

THE PHYSICAL ENVIRONMENT

The area around Kayenta can be viewed at three levels, from the most general to the most specific; these are: the physiograph province (the Colorado Plateau), the area around Kayenta that interacts with it (the situation), and the area actually occupied by Kayenta (the site). Since the inception of a permanent settlement at Kayenta was not a modern phenomena, a fourth consideration demands attention; that is, the manner in which the environment was perceived at the time of original settlement, a perception more relevant to this study than is the way in which the environment is perceived at this time and by this writer.

The Colorado Plateau

The Colorado is the highest of the four major plateaus in the United States, averaging well over 5,000 feet in elevation (Map 1).¹

¹Charles B. Hunt, Physiography of the United States
COLORADO PLATEAU
MAP No. 1

Horizontal layers of sedimentary deposits and some layers of tectonic materials, primarily lava flows and igneous intrusions, which have been uplifted, form the plateau. The Navajo Indian Reservation covers almost twenty-five per cent of the Plateau and is typical of the Plateau's environment.\(^2\) Minor areas of uplift have resulted in the creation of mountains and domes.

Water, the primary conveyor of energy, has been responsible for most of the relief in the area. It has cut the canyons, incidentally exposing the history of the area; it has made hogbacks of simple folded hills; it has washed away less resistant volcanic material and left residual and strikingly dramatic necks, plugs and ridges, which are particularly abundant in the Kayenta and Monument Valley area (Map 1). The results of the erosive action of wind and water on the mesas and other elevated forms have sometimes been referred to as "retreating

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escarpments. The predominance of water as an erosive agent seems an anomaly when compared to the relatively small amount of rain falling on the plateau, less than 20 inches per year, with most areas, including that of Kayenta, receiving closer to 10 inches per year. Water erosion is greatly aided by the wind and by frost wedging, especially during the winter. Erosion, therefore, is more rapid than would be anticipated if only the amount of water were to be considered, and very striking relief is created. The entire Colorado Plateau area has been classified by the United States Department of Agriculture as falling within the categories of moderately (25 to 75 percent of topsoil lost annually) to severely (75 percent or more of topsoil lost annually) eroded landscape. Kayenta is within the area classified as having severe erosion.

As a result of high rates of evaporation and a lack of vegetation throughout, the plateau surface is dry,

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5 Hunt, op. cit., p. 97.
loose and easily eroded. The following statistics, although they may actually be of little value due to the extreme variability within the Colorado Plateau, should be considered when describing the climate of the plateau area: the area has moderate average annual temperatures varying between 50°F. and 60°F. This average is, however, a composite of extremes with the maximum (July and August) average approaching 110°F. and the average minimum (December and January) frequently reaching 0°F. The average annual rainfall is approximately 10 inches, with some areas reaching the 20 inch per year mark; and the average annual runoff is less than one inch, with slightly greater runoff occurring in some areas.6

Although a great majority of the soils on the Plateau are probably azonal,7 i.e., the type of soil not conducive to plant growth, two types of zonal soils are found on the plateau and in the area of Kayenta. They are the Brown (semi-arid) soils, and the Sierozem or Gray Desert (arid) soils which, if sufficiently watered can

6 Ibid., pp. 59, 74. See also Appendix A for specific records of climatic conditions at Kayenta.

7 Dillford Hutchins, BIA Soil Conservationist, Kayenta, Personal Communication (May 7, 1968). Azonal soils are not true soils, as they have not developed the horizontal layering and associated organic materials
support substantial vegetation. Although vegetation consists primarily of grasses and low shrubs, pinyon (Southwest coniferous) forests are found in the higher elevations and Ponderosa Pine forests are found in the Lukachukai Mountains, the Defiance Plateau and Black Mesa. While generalizations can serve to categorize the entire Colorado Plateau Region, the variation within the region is one of its more outstanding characteristics. A one word description might well be abrupt. The landforms, amount of water, soil type, and vegetation cover change, in general, more abruptly than in the other physiographic provinces of the United States. Although there are many extremes within the province, the area around Kayenta, which will be discussed below, is probably typical of the Colorado Plateau.

**The Situation and Site of Kayenta**

Kayenta is situated on the south side of Laguna Creek near the mouth of a narrow canyon formed by Laguna Creek between Black Mesa on the south, and Skeleton Mesa characteristic of true or zonal soils. Talus is an example of an azonal soil.

Situation refers to the general setting of a particular locale, that is greater in area than the locale itself and has a meaningful relationship to it.
(Figure 1) on the West (Map 2). Near the head of the canyon is Marsh Pass (Figure 2), at an elevation of approximately 6,200 feet; Black Mesa and Skeleton Mesa rise to heights in excess of 7,500 feet on both sides of Marsh Pass, while Kayenta is located at an elevation of approximately 5,660 feet. Laguna Creek (Figure 3) drains the area around Kayenta through a series of tributaries. The creek and its tributaries are intermittent streams but are known to contain some water at all times, although it may stagnate in pools. The entire drainage system flows north-easterly into the San Juan River in southern Utah. A number of sandstone rock formations (Figures 4 and 5) as well as a few volcanic extrusions, can be seen in the area.\(^9\) These rock formations become more pronounced in the area approximately 20 miles north of Kayenta, known as Monument Valley.\(^{10}\) One volcanic extrusion, the remnants of a volcanic neck, is known as El Capitan or Agathla Peak and is located between Kayenta and Monument Valley (Figure 6).


\(^{10}\) Monument Valley is maintained by the Navajo Tribe as a Navajo Tribal Park.
Figure 1

Aerial view of Kayenta looking toward the northwest. Skeleton Mesa can be seen in the background. (Photographed May, 1968).

Figure 2

View of Marsh Pass looking toward the southwest. The old dirt road, which served as the only access through the pass, until the early 1960's, can be seen on the left. (Photographed May, 1968).
Figure 3
Entrenchment of Laguna Creek near the north end of Marsh Pass. (Photographed November, 1968).

Figure 4
Butte and Mesa formations in the Kayenta - Monument Valley Area. (Photographed April, 1968).
Figure 5

Typical sandstone rock formation resulting from erosion. (Photographed approximately 20 miles north of Kayenta, April, 1968).

Figure 6

El Capitan or Agathla Peak, a volcanic neck, north of Kayenta along State Highway 464. (Photographed looking southward, April, 1968).
Although some pinyon and juniper forest exist on Black Mesa and Skeleton Mesa, the vegetation around Kayenta consists mainly of sagebrush and grass. This general lack of vegetation is associated with climate, soil and overgrazing conditions. While the climate is not conducive to abundant vegetation cover and the soils are not fully developed, a major reason for the lack of vegetation has been overgrazing. Early observations indicate that the reduction of vegetative material has been significant during the last half century.

The problem of overgrazing is not unique to the area around Kayenta, and is a problem faced on the entire Navajo Reservation. The overgrazing is a result of the Navajo's allowing their herds, for a variety of reasons including the value of sheep for social as well as economic reasons, to increase beyond the carrying capacity of the tribal range. This condition has existed since the 1920's.\textsuperscript{11} In 1959, a summary of grazing conditions on the reservation (Table I) indicated that the total sheep units\textsuperscript{12} being

\begin{flushright}

12Other animals grazing on the reservation are for ease of comparison transposed into sheep units; for example, cattle are figured at five times the value of sheep.
\end{flushright}
## TABLE I

**RATE OF OVERGRAZING**

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<th>YEAR</th>
<th>KAYENTA (DISTRICT 8)</th>
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<tr>
<td>1952</td>
<td>9% UNDER</td>
<td>15% UNDER</td>
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<tr>
<td>1953</td>
<td>4% UNDER</td>
<td>12% UNDER</td>
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<tr>
<td>1954</td>
<td>1% OVER</td>
<td>6% UNDER</td>
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<td>15% OVER</td>
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<td>0%</td>
</tr>
<tr>
<td>1957</td>
<td>10% OVER</td>
<td>2% OVER</td>
</tr>
<tr>
<td>1958</td>
<td>26% OVER</td>
<td>5% OVER</td>
</tr>
<tr>
<td>1959</td>
<td>33% OVER</td>
<td>5% OVER</td>
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being maintained on the reservation exceeded the carrying capacity (which is estimated at about 512,922 sheep units) by five per cent, while the portion of the reservation of which Kayenta is a part (District 8) was approximately 33 per cent over its carrying capacity.\textsuperscript{13} Prior to the commencement of the stock reduction programs of the 1930's and 1940's, which are still in effect, the reservation was overstocked in excess of 100 per cent above its carrying capacity.\textsuperscript{14} Overgrazing then, as it effects the removal of vegetation, is an important aspect of the physical environment, even though culturally induced, as it results in increased runoff and therefore more rapid erosion. Laguna Creek, for example, must have been a minor stream in the area of Kayenta prior to the 1880's. The Wetherills, the first Anglo family to settle at Kayenta, who crossed the area in 1906, noted with surprise that "Laguna Wash" barred the way but when Jack Wade and his family (Louisa Wetherill's parents) had passed through the area during the winter of 1879-80 there had been no wash, only low, green meadows,\textsuperscript{15} a situation that did not exist in 1968.


\textsuperscript{14}Ibid., p. 150.

\textsuperscript{15}Frances Gillmor and Louisa Wade Wetherill,
The area surrounding Kayenta is relatively level with some variations in topography both above and below the general level, for example, bluffs and ridges and washes. To the north of the Kayenta townsite, paralleling Laguna Creek, is a moderately high ridge, approximately 200 feet above the general level. Access to Kayenta across this ridge is somewhat limited, as it is in other directions. To the southwest, access is limited to the route through Marsh Pass (Figure 5). The San Juan River, in the northeast, was a successful barrier to traffic coming into the area, primarily due to the height of the banks and the velocity of the river, until the construction of the bridges at strategic points. At other points the San Juan has to be forded, and since the channel varies in depth from 20 to 50 feet, this method of crossing is considered difficult. Access from the east is relatively easy, even though the deep washes and sharply raised hills, mesas and buttes make travel in a straight line impossible, and the distances between Kayenta and other settlements is great.

Water is presently adequate to serve the needs of the area. Aside from the water available in Laguna Creek,
water is available from three pumps which tap the somewhat extensive ground water supply. The spring from which the water was originally obtained for the settlement is no longer used. Sufficient water was available to allow the irrigation of fields under the direction of a government farmer at some previous time.\textsuperscript{16}

The townsite of Kayenta occupies an area of approximately four square miles. This area slopes gently to the east at about a 1:350 or approximate 0.2 per cent overall slope. A small sandstone hill or bluff rises about 20 feet above the general level, measured on the south side of the bluff. It is elongated in an east-west direction about one mile, while the width of the bluff is only about a half mile. The spring, which originally supplied the water for the settlement, is located on the north side of the hill. As Laguna Creek is located on that side of the bluff, it is about 20 feet lower than the south side. At present, two large water tanks, containing 500,000 gallons each, are located on this hill. These tanks supply the water required by the entire community, except for those

\textsuperscript{16}No information is available pertaining to the time during which the fields were utilized. The irrigation ditches are still visible, but are only used to a very limited degree, according to Dilford Hutchins, see n. 7.
facilities operated by the Federal Government. The Government maintains separate tanks and a water pump, which are located on property occupied by the boarding school.

At first glance the site seems similar to others in the area, but the choice of site, at the time of settlement, was critical. It was made at a time when man's technology was much more limited than now, and when transportation to points away from the railroad tracks was difficult. There was very little that could be done to make the environment more livable. Therefore, much depended on how the environment was perceived by those who made the decision to settle the area.

**Early Perception of the Physical Environment**

Although John and Louisa Wetherill were the first to settle at the site of Kayenta in the early 1910's, no accurate documentation is available to indicate precisely why they settled there.\(^{17}\) The Superintendent of the Government Boarding School at Tuba City did, however, give

\(^{17}\)To the extent that the available information warrants, the original settlement by the Wetherills will be discussed in Chapter 2. John and his wife, Louisa, were children of early settlers in the area. The Wetherill family was involved in ranching and Indian trading in southwestern Colorado and on the Navajo Reservation for a long time. In addition to their trading and archaeological
a contemporary account of the physical environment in some correspondence with the Commissioner of Indian Affairs in Washington, D.C. A letter dated March 9, 1911 from C. R. Jefferies, Superintendent of the Tuba City School to the Commissioner of Indian Affairs discusses the physical environment of the Marsh Pass area, which included Kayenta, in the context of a report concerning site choices for a new school. The area referred to as the To-da-nos-ja Springs or Kayenta was subsequently chosen as the site.

Superintendent Jefferies letter reads in part as follows:

In reply to Office Letter of December 29, 1910, reference above, I have the honor to submit the following report:

Location and Physical Characteristics

Marsh Pass is located about 65 miles northeast of Tuba, and is the natural passageway between and connecting the northern and southern parts of the reservation. The Pass runs northeast and southwest. The approach from the south is through a very pretty valley that gradually narrows until it forms the Pass. The Black Mesa forms the south side of the valley for a distance of 40 miles or more, and the Pass itself is across the extreme northern point of the mesa. On the north side of the valley are red sandstone hills which, nearing the Pass, close in and become rougher and higher.... North of Marsh Pass the country broadens out very beautifully and is generally level, although broken in places by

work at Chaco Canyon they initiated exploration of the Mesa Verde region.
washes and small bluffs. This wide expanse of land is covered with grass and other low growing vegetation. The soil is apparently fertile and has comparatively little sand. The altitude at the highest point is about 6500 feet, but there is a drop of 500 feet or more within a short distance. It is probably a little cooler here than at Tuba, and the rainfall is said to be slightly greater...

I was able to find but seven springs in the Marsh Pass section, ...

About ten miles beyond the Pass, and south and east of Laguna Creek are the To-da-nos-ja Springs. These springs come along the top of the low bluff. There are at least a half dozen places here where the water breaks out and there is every indication that a much larger supply can easily be developed. Whether or not a supply adequate for a school plant could be obtained can only be ascertained by development work. The water here is very good....

The formation of the Marsh Pass country would indicate that water could be obtained by drilling deep wells, and I believe that, before a school site is decided on, a well drilling outfit should do some work there.

The water question seems to resolve itself into these points:
1. Laguna Creek....
2. Springs in the Bed of Laguna Creek....
3. To-da-nos-ja Springs. The present flow of these springs is insufficient for school purposes, but it can be materially augmented by development work, and possibly an adequate supply obtained.
4. Drilling Wells....

Roads

Marsh Pass country can be reached by way of Flagstaff, Tuba and Red Lake or via Gallup, Ft. Defiance and Chin Lee. The distance by either route is practically the same, 155 miles. Both roads are bad, although from what I can learn, the Gallup-Chin Lee is a little better at present. I
have never been over the latter road, but I am given the following information by one of the licensed traders on the reservation located in the neighborhood of Marsh Pass and who freights his supplies from Gallup:

From Gallup to Ft. Defiance, 32 miles, the road is bad; from Ft. Defiance to Chin Lee, 45 miles, the road is good; from Chin Lee to Marsh Pass, 78 miles, the road is fair. As to the other route, the first 90 miles of road, Flagstaff to Tuba, are good; the next 26 miles, Tuba to Red Lake, are through heavy sand and the sand is very bad; from Red Lake to Marsh Pass the road is good until it begins to ascend the Pass where there is a heavy grade up over the divide. An expenditure of probably $600 would probably put this stretch of road (through the Pass) in shape to permit the hauling of loads over it. Water facilities along both routes are about equal.\footnote{18}

This recorded response to the then existing physical environment is significant in terms of the general lack of such data provided on early perceptions and land use decisions in other cases,\footnote{Yi-Fu Tuan "Attitudes Toward Environment: Themes and Approaches", Environment Perception and Behavior, Department of Geography Research Paper No. 109, ed. by David Lowenthal (Chicago: University of Chicago, 1967), pp. 6-7.} and the importance it places on Marsh Pass as the major accessway between the Southern and northern portion of the reservation.

\footnote{Bureau of Indian Affairs, "Tuba City Letter Books" 1911 (TC-74/124-8). See Appendix B for citation information concerning letter books. The reference number is cited to facilitate cross references with Appendix B and C.}
Although a number of sites were considered by Agent Jefferies and others, it is evident that the primary concern, at that time and so far as the selection of a potential school site for future development was concerned, was the availability of a dependable supply of water. Both the To-da-nos-ja Springs and Laguna Wash (Map 2) were considered adequate for the supply needed to maintain a school and related facilities. The relationship to other localities for various supplies and materials, i.e. Fort Defiance, Tuba City, Chinle (Chin Lee), Gallup and Flagstaff (Map 3) was also a consideration, but not nearly as significant as the water supply. Other considerations of building material, access and fuel were minor in comparison.

There is no record as to whether or not any well sites were tested in the vicinity of the school site, as was requested in the letter. A subsequent letter, dated January 1, 1911, discussed the location of the school building in relation to the means available to obtain a gravity flow of water from the To-da-nos-ja Springs. As mentioned above the springs are no longer utilized and a well and storage tank have been constructed on the school property.

Thus, although the physical environment of Kayenta
is in many ways similar to other areas of the Navajo Reservation and the Colorado Plateau, two factors related to the physical environment of Kayenta make the site uniquely suitable for settlement. These factors, which were also recognizable to early settlers are: its location in proximity to Marsh Pass; and the availability of a substantial supply of water.
CHAPTER II

ORIGIN AND EARLY GROWTH OF KAYENTA

Although the area of Kayenta was settled permanently by previous Indian groups, as evidenced by the rich archaeological history of the area, there is conflicting opinion concerning the development and early growth of Kayenta as a permanent settlement in modern times. In particular, it is uncertain whether or not Kayenta was selected as the site of a government school before or after a trading post had been established there. The establishment of the correct sequence of these two events affords some insight into the original function of the settlement.

The First Stage of Settlement

The first permanent Anglo settlers in the area, John and Louisa Wetherill and their partner Clyde Colville, were traders who moved into the area in 1911. Prior to the establishment of their trading post, Kayenta had served as a stopover point for those traveling between Arizona and Utah via Marsh Pass (Maps 2 and 3). Louisa Wetherill's
parents came through the Marsh Pass-Kayenta area, which did not formally become part of the Navajo Reservation until 1884, in the winter of 1879-80, on their way to Mancos Valley, Utah. They had stopped in Marsh Pass at the place where Tsegi Canyon joins the Pass, and at To-da-nos-ja Springs, "...the place where water comes like fingers out of a hill."20

A quarter of a century later John and Louisa Wetherill traveled through this same area, stopping at To-da-nos-ja Springs on their way from Pueblo Bonito, New Mexico to Oljato, Utah, where they had established a trading post with Louisa's brother John Wade and Clyde Colville (Map 3). The Wetherills were apparently encouraged by the Navajos of the area, particularly Yellow Singer, to stay there.21 At that time it was necessary for them to construct a ford across Laguna Creek, in the vicinity of Kayenta, before proceeding to Oljato.

Three years after the Wetherills first established


21 Ibid., p. 78. It is not mentioned whether or not Yellow Singer was a ranking local in the Navajo Tribe, although the assumption is that he was influential at least locally.
their trading post at Oljato, in 1906, a bridge was built across the San Juan River at Mexican Hat. This increased the Wetherills' contacts with the surrounding area. Shortly thereafter, in 1910, they decided to relocate their trading post at the site of the To-da-nos-ja Springs. The reasons for this decision, as recounted by Louisa Wetherill, were:

...they would have water. They would be a day nearer to supplies [at Flagstaff], one long day of pulling through sand. A school that was soon to be built there would make it an advantageous site for a trading post. Someone else would build there soon if they did not.22

At this time the responsibility for the administration of the Western Section of the Navajo Reservation was in the hands of the Superintendent of Education at Tuba City (Map 3). The first official record of the Wetherills' desire to locate in Kayenta was noted in a letter sent by C. R. Jefferies, the Superintendent of Education at Tuba City, to the Commissioner of Indian Affairs in Washington, D. C., on July 18, 1910.23 Two other dates are also of crucial significance in establishing the earliest function of Kayenta: November 2, 1910 was the date of the first

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22Ibid., p. 188.

record of the intent to locate a school at the site of Kayenta, or for that matter, anywhere in the area; and January 1, 1912 was the first record of the selection of Kayenta as the site of the proposed school.25

The Wetherills apparently began the operation of their trading post at Oljato without a license, as the first available correspondence from Agent Jeffries to Wetherill and Colville at Oljato was dated June 28, 1910, and concerned their need for a license.26 Wetherill and Colville indicated in a letter to Jeffries that they did not need a license for their post at Oljato, as they had located on a placer mining claim, established prior to the time the Oljato area was incorporated into the Navajo Reservation thus giving them certain rights to the use of the land. Agent Jeffries noted on July 18, 1910,27 in a letter to the Commissioner of Indian Affairs that Wetherill and Colville were interested in obtaining a trader's license to operate at Kayenta. According to that letter,28

24 Ibid., 1910 (TC-73/328-31).
25 Ibid., 1912 (TC-75/380-6).
26 Ibid., 1910 (TC-73/12).
27 Ibid., 1910 (TC-73/63-4).
28 Ibid., 1910 (TC-73/63-4).
the Wetherills and Colville originally planned to operate trading posts at both Oljato and Kayenta. In a subsequent letter to the Commissioner of Indian Affairs, Jefferies identified the proposed site of the trading post as: "...Sage Chin Lee, in the Kayenta District, Arizona." He also indicated that the Wetherills and Colville had decided to abandon their store at Oljato. The nearest trading post to the proposed Kayenta site was Red Lake, about sixty miles southwest on the route to Tuba City (Map 3). The Red Lake Trading Post was operated in part by the Babbit brothers, who were subsequently to open Kayenta's second trading post. The Babbitt brothers formed the largest and most important trading company on the reservation, from a headquarters in Flagstaff, Arizona, the company they founded still operates many trading posts, including one at Kayenta.

The license for the Wetherills' post at Kayenta was approved, and notification of the approval was sent to them at Oljato by Agent Jefferies on November 19, 1910.30

29 Ibid., 1910 (TC-73/120-1). The meaning of the former name "Sage Chin Lee" is unknown to this author, although it may be a corruption of Tsegi, i.e. Tsegi Canyon.

30 Ibid., 1910 (TC-73/328).
As late as May, 1911, the Wetherills' mail continued to be sent to Oljato, Utah. The Wetherills had requested that a post office be established at Kayenta and until one was approved they merely called Kayenta, Oljato, switching their address from Oljato, Utah, to Oljato, Arizona. Even though the address on the mail to the Wetherills, originating in Tuba City, was not changed from Utah to Arizona until sometime between May 11, 1911 and July 7, 1911, Byrd Granger in *Arizona Place Names* states that the post office at Kayenta was established as Oljato, Arizona, on January 31, 1911, and changed to Kayenta, Arizona, on March 21, 1911.31

Although all sources do not agree, it can be stated with a reasonable degree of certainty that a trading post was established at the site of Kayenta by the summer of 1911. At that time the Anglo population of the settlement numbered five: the Wetherills, their two children and Clyde Colville.

It appears that the reasons for the establishment of the trading post at Kayenta were not entirely the same as

the previously noted reasons outlined by Louisa Wetherill. The traders seem to have been influenced by several considerations: they would or could not obtain a license to continue their operation at Oljato, Utah; they wished to be more centrally located rather than on the fringe of the reservation, as they were at Oljato; and they wished to be located along a relatively well traveled route such as the one from southern Arizona to Utah. In all probability they were unaware of the possibility of a school being established at Kayenta prior to their decision to locate there. A lack of water at Oljato, a major reason for the abandonment of the post according to Louisa Wetherill, may have had little to do with the movement of the post to Kayenta, for today a community with a trading post, air strip, chapter house, mission and a number of hogans exists on that same site with its water being supplied from wells. Wetherill and Colville did, however, establish a post twenty-five miles closer to Tuba City, the agency headquarters, as well as to the rail line at Flagstaff. The Kayenta post was located along a relatively well traveled route, not too close to any existing trading post, facilitating the establishment of an effective service area. It is my opinion that Kayenta's first settlement was, therefore, based on its utility as a commercial
center for the distribution and exchange of goods, not as a government center outpost.

The importance of the location of a trading post along a main route, created by the funneling effect of Marsh Pass, is demonstrated by the Wetherills' request to have the mail being sent from Tuba City to Shiprock routed through Kayenta. This request, made shortly after the opening of their trading post in Kayenta, was acknowledged and forwarded to Washington on December 22, 1911.\(^2\)

As previously mentioned, on January 1, 1912, Agent Jefferies wrote to the Commissioner of Indian Affairs concerning the proposed school at Marsh Pass.\(^3\) At that time Jefferies indicated that the school should be erected where water could be obtained by gravity flow from the To-da-nos-ja Springs, but not near the trader's store. The proposed school plant was to consist of five buildings: the classroom, the teachers quarters, a small warehouse, and a boys' and a girls' dormitory. Jefferies noted that no provision had been made for a kitchen or laundry, and suggested that, as the nearest medical aid was in Tuba City, physician's quarters and dispensary be included in

\(^2\)Bureau of Indian Affairs, op. cit., 1911 (TC-75/350).

\(^3\)Ibid., 1912 (TC-75/380-6).
the plans.

It was originally proposed that the buildings be of the same type of construction as that employed in the trader's buildings—a wood stockade structure with dirt and pole roof and dirt floors. Jefferies suggested that stone found in the area would be far better than wood for the structure, and that wood floors and corrugated sheet iron roofing should be used in the school buildings. He also proposed that the needed materials should be shipped by rail to Farmington and then freighted by wagon to Kayenta. Jefferies also proposed that Indian labor be utilized in the construction of the school buildings with a "...competent white man to supervise the work."

Jefferies and C. C. Early (Special Agent in Charge at Tuba City), carried on considerable correspondence with various contractors and suppliers for the purpose of securing bids for the needed construction materials. Early suggested an alternative to Jefferies' proposal and requested that supplies be routed from Flagstaff via Tuba City to facilitate checking the orders.

William Sullivan, who replaced Jefferies as Superintendent of Education at Tuba City, wrote to Washington,

34 Ibid.
D.C., on December 10, 1912, informing the Commissioner of Indian Affairs that he was ready to start construction of the Marsh Pass in the spring of 1913.\(^\text{35}\) The school was originally proposed as a boarding school; however, subsequent correspondence refers to it as a day school. On September 13, 1912, Early wrote to the Commissioner emphasizing the need for a boarding school rather than a day school;\(^\text{36}\) and correspondence indicates that a boarding school was opened sometime between December, 1913, and August, 1914.\(^\text{37}\) A principal, matron, cook/laundress, and a farmer were employed at the school. Mr. Lee Bradley, Sr., a Navajo who has lived in the Kayenta area for about 70 years, indicated that the government boarding school opened in 1912 with an enrollment of 15 boys and 15 girls.\(^\text{38}\) The enrollment of 30 is substantiated by Louisa Wetherill,\(^\text{39}\) but not the date.

At the same time the school was under construction, the Presbyterian Church was in the process of trying to

\(^{35}\)Ibid., 1912 (TC-78/9).

\(^{36}\)Ibid., 1912 (TC-77/347-8).

\(^{37}\)Ibid., 1913 (TC-79/422); Ibid., 1914 (TC-80/49).

\(^{38}\)Personal communication, May 9, 1968.

establish a mission in Kayenta. The present minister at the church, John V. Beck, believes that the mission was first established in 1913, which is confirmed by a letter from Agent Sullivan to the Commissioner of Indian Affairs (May 19, 1913) in which Sullivan forwarded the request of the Presbyterian Mission to locate in Kayenta at a site approximately one mile from the Marsh Pass school buildings.

Some adventurous travelers toured the vicinity of Kayenta prior to 1913, but the development of a modest tourist industry was not stimulated until an account of Theodore Roosevelt's trip into the area during August, 1913, was published later that year. In addition to describing the striking landscape of the Monument Valley area, the article Roosevelt wrote included a narrative about a pack trip to Rainbow Bridge, with John Wetherill serving as guide. Roosevelt also provided the following description of Kayenta:

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40 Personal communication (May 7, 1968). A mimeographed brochure distributed by the Presbyterian Church indicated that the mission was first established in 1912.

41 Bureau of Indian Affairs, op. cit., 1913 (TC-78/175).
Next morning we journeyed on, and in the forenoon we reached Kayenta, where John Wetherill, the guide and Indian trader lives. We had been traveling over a bare tableland through surroundings utterly desolate, and with startling suddenness, as we dropped over the edge, we came on the group of houses--the store of Messrs. Wetherill and Colville, the delightfully attractive house of Mr. and Mrs. Wetherill, and several other buildings. Our new friends were the kindest and most hospitable of hosts, and their house was a delight to every sense: clean, comfortable, with its bath and running water, its rugs and books, its desks, cupboards, couches, and chairs, and the excellent taste of its Navajo ornamentation.42

It should be noted that no specific reference was made to any school facilities at Kayenta. After Roosevelt's article was published, increased numbers of people came to view and explore the area. The Wetherills turned from outfitting and guiding only dignitaries and scientific and archaeological parties, to outfitting all those who wanted to visit the area. John Wetherill continued to guide scientific expeditions until 1921-2.43

Thus, within the first three to four years of its existence, two additional functions of Kayenta developed, that of serving as a focal point for government services

42 Theodore Roosevelt, "Across the Navajo Desert", Outlook, CV (October 11, 1913), p. 311.
and that of serving as a tourist center. These two functions were critical to the future growth of Kayenta, as both have continued to be basic to the life of the community.

Subsequent Development

After the initial development of Kayenta, as illustrated by the facilities shown on Map 4, the growth of the community for the next four decades was comparatively slow and for the most part dependent on investments by the federal government, especially in the areas of education and health. There was relatively little private development during the period from 1915 to 1955. Two major exceptions were the expansion of the Wetherills' Kayenta Trading Post, and the addition of the Warren Trading Post.

There is no record of any change in the physical makeup of the community between 1915 and 1920. Additional construction occurred in 1920 with the addition to the Wetherills' existing facilities of a series of guest bedrooms and a guest bathroom which were located just west of the family's house and trading post. As late as the 1930's the Wetherills continued to provide meals for their guests in their dining room, and their living room served as a combination lounge and lobby. The need for this
MAP No. 4
KAYENTA IN 1915

Scale: 1:4800 (Buildings not drawn to scale)
Contour Interval = 25 feet
===== Unpaved Road

SOURCE: TUBA CITY LETTERBOOKS, 1911-1915 and
NAVAJO TRIBE, KAYENTA TOPOGRAPHIC BASE MAP, 1962.
addition and related services indicates that the tourist trade was increasing.\textsuperscript{44} The guest facilities and house subsequently became the Kayenta Lodge and Cafe.

The Babbitt brothers, in partnership with H. K. Warren, opened the Warren Trading Post during or prior to 1921. The original site of the post, directly across from its present location, was along the same road that passed in front of the school, the mission and Wetherills' post. The Warren Post was operated at that site, on the north side of the road, for approximately five years. In 1925 or 1926 it was relocated at its present site on the south side of the road. Shortly thereafter the Post Office was moved from the Wetherills' Post to the Warren Post. The relocated Warren Trading Post building still stands, but has been expanded a number of times (Figure 7).

The boarding school, according to local informants, was closed shorty after the United States entry into World War I, thereby eliminating all educational facilities for Navajo children in the Kayenta area until approximately 1950.\textsuperscript{45}

\textsuperscript{44}Elizabeth Hegemann, \textit{Navajo Trading Days} (Albuquerque, University of New Mexico, 1963), p. 231.

\textsuperscript{45}Lee Bradley, Sr., see n. 38; John Zufelt, Manager, Warren Trading Post, Kayenta, personal communication.
Shortly after the relocation of the Warren Post or in conjunction with it, the State of Arizona constructed two buildings on the original site of the post. These buildings were utilized as a one room public day school and teacher's residence (Figures 9 and 10). The school was involved primarily with the education of the Anglo children of the area, but accepted Navajo students as space allowed if they were fluent in English. These buildings are still in existence, and one, the teacher's residence, has been converted for use as the local headquarters of the Navajo Police.

In 1929, the Department of the Interior constructed a tuberculosis sanitarium at Kayenta, on the site of the abandoned boarding school. 46 A portion of the boarding school facilities was utilized in conjunction with the sanitarium, which operated until 1944, when it too was abandoned. The nurses' house, which is also still in existence (Figure 8), was built in conjunction with the sanitarium and later utilized as the dormitory for the (May 6, 1968).

46 Robert W. Young, ed., The Navajo Yearbook (Window Rock, Navajo Agency, 1961), p. 89. Local informants, Bradley and Zufelt, believe the sanitarium was built prior to this date.
Figure 7
The Warren Trading Post as it exists today. The three stages of its development can be seen, the oldest portion is to the east, on the left side of the photograph. (Photographed, May, 1968).

Figure 8
The house originally constructed during the late 1920's as a nurses' quarters, was subsequently used as a dormitory and now abandoned. (Photographed May, 1968).
Figure 9
Abandoned State of Arizona Public Day School classroom building. Utilized from the 1920's to 1940's. (Photographed May, 1968)

Figure 10
Building constructed by the State of Arizona to serve as the residence for the teacher of the Day School (Figure 9). The building is presently utilized as the local headquarters for the Navajo Police (Photographed May, 1968).
boarding school when it reopened in 1951.\footnote{Mrs. I. M. Kingsley, substitute teacher, Kayenta Boarding School, personal communication, (May 7, 1968).} The original boarding school and tuberculosis sanitarium were both located on land that had been allocated by the Bureau of Indian Affairs for school purposes.

During the depression of the 1930's, when the Works Progress Administration was sponsoring the Federal Writer's Project, a guide series book on Arizona was prepared. At the time that book was written, Kayenta had a population of twenty persons and consisted of a trading post with limited accommodations and a filling station, a tuberculosis hospital for the Indians, and a day school.\footnote{Federal Writer's Project, Arizona, the Grand Canyon State: A State Guide (New York: Hastings House, 1940), p. 423. Although two trading posts existed at that time, the text only indicated one, probably the Wetherills' post.}

The day school and the sanitarium were closed shortly after the United States entered World War II. Although the closing of the school is attributable to the redirection of Federal money priorities due to the war effort, some residents of Kayenta feel that the sanitarium was closed in response to the refusal of the Navajos to go there for treatment. Their refusal was attributed to the deaths of many Navajo while patients in the sanitarium.
The closing of these government facilities left Kayenta with only two trading posts and one mission until the day school reopened in 1946.

John Zufelt, who became manager of the Warren Trading in 1952, when the day school had an enrollment of thirteen, stated that the town was virtually dormant from 1944 to 1954. Although this statement can, as a generalization, be applied to Kayenta's growth prior to 1954, especially in comparison with its growth since 1955, there were three noteworthy events which occurred prior to 1955. These were: the beginning of airplane flights into the area, the construction of a church by the Presbyterian Mission, and the reactivation of the boarding school.

In May, 1927, Scenic Airways, Inc., a tourist oriented sightseeing company operating from the Grand Canyon, landed the first airplane at Kayenta, just to the east of the townsite. The landing was cause for much excitement in the area and many came to witness the event, including the traders from Shonto. Although this and subsequent flights did not create an actual expansion of physical facilities, they did bring more people into the

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49 Personal communication, (November 24, 1967).

50 Hegemann, op. cit., p. 231.
area. These people generally came for two limited purposes: vacations and explorations of the natural features of the area and of archaeological ruins.

Eleven years later, in May, 1938, sufficient membership was achieved by the Presbyterian Mission to permit the establishment of a church at Kayenta. The National Board of Missionaries of the Presbyterian Church provided the funds for its construction. On September 16, 1939, Reverend L. P. Van Slyke dedicated the church building, which is still in use today, at a Sunday service attended by approximately one hundred persons, the capacity of the structure. A small educational wing was added to the church in 1950.

According to Mrs. I. M. Kingsley, who came to Kayenta in 1951, a one-teacher boarding school was opened that year. In addition to the teacher, a cook, an assistant cook, a matron, and a handyman were employed. The nurses' house referred to above was utilized as the

51 Reverend John V. Beck, Personal communication (May 7, 1968).

52 Personal communication (May 7, 1968). Mrs. Kingsley is presently a substitute teacher at the Kayenta Boarding School.

53 Lee Bradley, Sr., in an interview on May 9, 1968, stated that the boarding school was reopened in 1950.
as the dormitory. The house had four bedrooms; at the
time the school opened eighteen boys shared two of the
bedrooms, while sixteen girls shared the other two. Three
grade levels were taught at Kayenta: beginning (kindergarten), first and second. Older students, ready for the
third or higher grade levels, had to go to the boarding
school at Tuba City.

The existence of two coal mines in proximity to
Kayenta did not have a noticeable effect on the townsite
insofar as could be recalled by local residents. The two
mines, Kayenta No. 1 and No. 2 (Maloney Mine) were in
operation prior to 1950 and 1952 but had ceased operation
sometime prior to 1956. Marketable coal was produced at
the mines but the beds, especially in Kayenta No. 1, were
relatively thin. The mines were located on an unim-
proved dirt road which intersects with what is now Arizona
Highway 64, approximately twenty five miles southwest of
Kayenta (Map 2).

Although relatively little differentiation had
actually occurred since 1915, by 1955 a commercial center

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54E.C. Beaumont and G. H. Dixon, *Geology of the
Kayenta and Chilchinbito Quadrangles, Navajo County,
Arizona, Contributions to Economic Geology, Geological
consisting of two trading posts, one of which offered modest tourist accommodations, a church and two government facilities (a State day school and a Federal boarding school) formed the core of a visible community (Map 5). Rapid growth was soon to follow. Thus, by 1955 what Dickinson called "...town building processes..." had begun in Kayenta.55

Day School and Teacher's Residence

Boarding School (former tuberculosis sanitarium site)

Warren Trading Post

Presbyterian Church

Kayenta Trading Post

Wetherill Home and Guest Rooms

MAP No. 5
KAYENTA IN 1954

Scale: 1:4800 (Buildings not drawn to scale)
Contour Interval = 25 feet

CHAPTER III

RECENT GROWTH OF KAYENTA

The growth of Kayenta into the quasi-urban community that exists today, in the center of a relatively isolated area, has occurred primarily since 1955. At that time, after a long period of relative inactivity, the community began experiencing a semi-continuous trend of activity and growth.

Initial Impetus

The initial impetus to this period of rapid development was the establishment of a new and larger boarding school and a public elementary school in Kayenta. In 1950, under the Long Range Act (Public Law 474), the United States' Congress appropriated $25,000,000 for school construction purposes (Table II). On March 3, 1954, the Navajo Tribal Council formed the Navajo Emergency Educational Program (NEE), to reorganize and facilitate the distribution of federal funds for the purpose of increasing the total Navajo enrollment in boarding schools to a minimum of
### TABLE II

#### THE NAVAJO-HOPI LONG RANGE REHABILITATION ACT (P.L. 81-474)

**SUMMARY OF FUNDS ALLOCATED AGAINST AUTHORIZATIONS**

<table>
<thead>
<tr>
<th>Fund</th>
<th>Authorized</th>
<th>Allocated through 1962</th>
</tr>
</thead>
<tbody>
<tr>
<td>School construction</td>
<td>$25,000,000</td>
<td>$24,997,295</td>
</tr>
<tr>
<td>Health facilities</td>
<td>4,750,000</td>
<td>4,750,000</td>
</tr>
<tr>
<td>Water resources</td>
<td>2,500,000</td>
<td>1,356,670</td>
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<tr>
<td>Irrigation projects</td>
<td>9,000,000</td>
<td>6,616,775</td>
</tr>
<tr>
<td>Roads and trails</td>
<td>40,000,000</td>
<td>38,237,680</td>
</tr>
<tr>
<td>Soil-moisture conservation and</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Range improvement</td>
<td>10,000,000</td>
<td>7,097,175</td>
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<tr>
<td>Business-industrial development</td>
<td>1,000,000</td>
<td>238,000</td>
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<tr>
<td>Resettlement on Colorado River</td>
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<td></td>
</tr>
<tr>
<td>irrigation project</td>
<td>5,750,000</td>
<td>3,449,750</td>
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<tr>
<td>Surveys and studies of timber,</td>
<td>300,000</td>
<td>436,895</td>
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<tr>
<td>Coal and Minerals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Off reservation placement and relocation systems</td>
<td>3,500,000</td>
<td>194,000</td>
</tr>
<tr>
<td>Communications</td>
<td>250,000</td>
<td>250,000</td>
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<tr>
<td>Revolving loan fund</td>
<td>5,000,000</td>
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<td>Housing</td>
<td>820,000</td>
<td>26,300</td>
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<tr>
<td>Common service facilities</td>
<td>500,000</td>
<td>495,100</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$108,570,000</strong></td>
<td><strong>$89,946,240</strong></td>
</tr>
</tbody>
</table>

20,052 students. This reorganization of the distribution of funds by NEEP resulted in a savings of $4,573,500. A portion of that savings provided the $1,507,000 needed for the construction of a boarding school at Kayenta. Without that savings the 536 pupil boarding school would not have been constructed at Kayenta in 1955.56

The boarding school was constructed on the same site as that previously occupied by the old boarding school and sanitarium (Map 5). The school plant consisted of two dormitories, each with three residential wings, a dining room and kitchen; an eighteen-room classroom building with a large multi-purpose room; an administration building and library; a house for the appointed doctor; and a total of forty-three other housing units, consisting of fifteen efficiency apartments and twenty-seven two-bedroom apartments (Figure 11).

The construction of the school and the associated increase in population and activity provided incentives (primarily related to the increase of the paid labor force) for additional development. A third trading post, operated by the Ton-Den-Nashai Trading Company, opened in 1955, with

56 Robert W. Young, ed., The Navajo Yearbook (Window Rock, Navajo Agency, 1961), p. 18. It should be further noted that the "acceptable standard" boarding capacity of the school was 264, thus 186 students lived in overcrowded
Figure 11

Housing on the Boarding School site constructed in 1955. (Photographed May, 1968).

Figure 12

a twenty-five year land lease from the Navajo Tribe (Figure 12). During the same year, the Warren Trading Post obtained a new twenty-five year lease; and the Kayenta Trading Post obtained a similar lease the following year.57

Until 1953, public day schools on the Navajo Reservation were operated directly by either the state or federal government. Originally, Public Law 815 authorized the subsidization of school construction in areas of federal impact, i.e., where schools were needed to serve children of federal employees. This law was primarily oriented for use in conjunction with military posts where property taxes were not available for the support of public schools. Public Law 815 was amended by Congress in 1953 (Title IV), making federal money previously appropriated under Public Law 474 directly available to local school districts on Indian reservations for school construction purposes.

Although the amended law was technically in effect in 1953, the allocated money was not available to school districts within Arizona due to a state law. That law conditions in 1960. (Tbid., p. 22). The figure of 536 was the classroom capacity.

stated the acceptance of federal funds by a school
district required the approval of a majority of the real
property owners within the district. When the State of
Arizona's legislature removed this obstacle in 1957, School
District 27, comprising the northern sixty miles of Navajo
County, an area of approximately 2,400 square miles center-
ing on Kayenta, was formed. Funds totaling $373,320 for
the construction of a 180 student day school were received
on May 15, 1958 (Figure 13). The school as originally con-
structed offered a full elementary curriculum (eight grade
levels), but placed more emphasis on the upper grades.
Ninety students, ages six through twelve, and ninety stu-
dents, thirteen and over, were enrolled the first year.

The expansion of Kayenta was well under way.

A Pattern for Growth

A number of other occurrences, both public and
private, set the pattern for the future growth of Kayenta
during this period 1955-1967. Although no paved roads led
to Kayenta, increasing numbers of automobiles and pick-up
trucks, belonging to both area residents and tourists

58 Since all property was and is owned by the Navajo
Tribe, individual Navajos do not qualify as real property
owners, nor do the Anglo lease holders.

59 Young, op. cit., p. 57.
Figure 13
Kaye nta Elementary School.
(Photographed November 24, 1967).

Figure 14
Kayenta Motors and Supply, formerly Smith's Garage.
(Photographed November 24, 1967).
passing through the area via Marsh Pass, prompted the establishment of Smith's Garage in 1955 or 1956. The garage (Figure 14) was located along the same road and to the north of the existing trading posts. Prior to the establishment of the garage only gasoline and oil were available from Kayenta's two trading posts, and the nearest place at which parts or repairs could be obtained was Tuba City.

The Kayenta Lodge and Cafe (Figure 15) which grew from the Wetherills' original guest rooms, was no longer adequate to serve the increasing tourist and government activity in the town. In 1958, Mr. R. M. Heflin obtained a twenty-five year land lease for the construction of forty motel units, to be known as the Wetherill Inn. These units were constructed as a two story building on the top of the small bluff behind the Kayenta Lodge and Cafe. Figure 16 illustrates the relationship between the Wetherill Inn, the bluff, and the older structures which were located in close proximity to the To-da-nos-ja Springs. As an indication that there was sufficient anticipated business to support the older facility even with the new motel, the Kayenta Lodge and Cafe, in 1959, obtained a new twenty-five year lease. Although the Kayenta Cafe remained the only
Figure 15

Kayenta Lodge and Cafe.
(Photographed May, 1968).

Figure 16

Wetherill Inn, L-shaped building in upper right corner of photograph, and Kayenta Trading Post, Kayenta Lodge and Cafe and trailer facilities, on left side of photograph. (Aerial photograph taken May 6, 1968).
eating facility in town until completion of the Monument Valley Inn in 1966, the author observed in 1968 that the primary patronage of both the Lodge and Cafe was by Navajos, with the Anglos almost exclusively utilizing the Wetherill Inn and Monument Valley Inn and Coffee shop.

In addition to providing services for Kayenta's residents, the construction of the schools and related housing resulted in an increased concentration of both Navajo and Anglo population in and around Kayenta, thus increasing the need for even more goods and services from both public and private enterprises. It should be noted that the only permanent residential buildings, other than the Navajo's hogans, are provided for federal employees on the boarding school property and school district employees on the school district property. The one exception is a detached house on the Presbyterian Church site (Figure 17). Other individuals, Navajo and Anglo alike, have constructed their dwellings as integral parts of the related business or other facility, or have utilized trailers and mobile homes on their lease holds. Many Navajos, often in conjunction with traditional and modified hogans, have utilized trailers on various sites throughout the area within and around Kayenta.
Figure 17
Presbyterian Church and related dwelling.
(Photographed May, 1968).

Figure 18
Kayenta's air service, known as Monument Valley Air Service. (Photographed May, 1968).
The paving of Arizona Highway 464 from the Utah border, where it joined Utah Highway 47, to Kayenta was completed in 1961, and was the first paved road to reach Kayenta (Map 3). At approximately the same time, United States Highway 164, also known as Navajo Route 1 and Arizona Highway 64, had been paved to within ten to fifteen miles of Kayenta, between Tsegi and Cow Springs, on the west and to within an approximately fifty miles of Kayenta on the east, between Teec-Nos-Pos and Mexican Water (Map 3). The location of this highway is further evidence of the funneling effect of Marsh Pass and the importance of Kayenta as a "pass" town. The paving of this stretch of road, sixty to sixty-five miles in length, was completed in 1963.60 During the highway construction, and since that time, the Arizona State Division of Highways has provided an equipment and maintenance yard in Kayenta. This facility services the state highway system in the vicinity of Kayenta, from Tuba City to the Utah-Arizona border.

With the paving of the above-mentioned roads, Kayenta became easily accessible, within two or three hours driving time, from such places as Cortez, Colorado, 114

60young, op. cit., pp. 133-143; John Zufelt, a local trader, see footnote no. 45. Local opinion on the year the paved highway was completed varies from 1957 to 1964.
miles northeast; Farmington, New Mexico, 130 miles east; Flagstaff, Arizona, 150 miles southwest; and Page, Arizona, 150 miles northwest via U.S. 164 and U.S. 89 (Map 3).

United States Highway 164 passes approximately one mile south of the then existing "core" of Kayenta (Map 6), parallel to a small air strip, and has been connected to Kayenta by Arizona Highway 464. Both of these roads left most of the existing development on a partially paved side street, which was formerly the main road.

As might be expected, the first land lease at the junction of the two highways, Arizona 464 and U.S. 164, was for a service station. A twenty-five year land lease for the northwest corner of that intersection was issued on March 20, 1962, and an American Oil Company service station was subsequently constructed. A permanent aircraft tie-down facility was also provided on this site as the manager of the service station also operates an air service providing scenic flights for tourists and an air ambulance service for residents (Figure 18). An unpaved airstrip, previously noted, has been located parallel to and north of U.S. 164 at least since 1955 (Figure 19 and

61 Jerome Ray, see footnote no. 57.
Water and electricity is supplied for all developments, except those which are federally operated, by the Navajo Tribal Utility Authority (NTUA) which, since the early 1960's, has maintained a branch office and equipment yard in Kayenta (Figure 20). Water and electricity for the boarding school, federal agencies, and the federal employees' housing are provided by a separate well, water storage and a generator facility located on the school site and operated by the Plant Management Division, Bureau of Indian Affairs.63

Another significant occurrence of the early sixties was the founding of Monument Valley High School under the jurisdiction of Public School District Number 27. The high school classes were conducted in the elementary school facility until the high school building was constructed in the 1966-67 academic year. The first high school graduation in Kayenta occurred in 1962 when seven students received their diplomas.64


63 Ruth Ann Benallie, employee NTUA, Kayenta, personal communication (May 6, 1968).

64 Jack Wilson, Superintendent, School District No. 27, Kayenta, personal communication (May 3, 1968).
Figure 19

Figure 20
Navajo Tribal Utility Authority (NTUA).
Note residential trailers in background.
(Photographed November 24, 1967).
Supplementing the expansion of the public day school facilities, the federal government expanded the boarding school facilities in 1963, by increasing its original student capacity, at acceptable standard levels, two and one-half times. This expansion was accommodated by the addition of two new dormitories with four residential wings in each and a new six room classroom building, bringing the total number of classrooms to twenty-four (Figure 21). Each of the new dormitories contained two two-bedroom and three one-bedroom apartments for the Navajo "house-mothers" and their families. In addition to the classroom and dormitory facilities, the housing inventory for federal employees living on the school site was increased by thirty-six two and three bedroom houses and eight efficiency apartments.  

The public school district has also provided housing in conjunction with both the elementary school and the high school on the sites of each of the facilities. These are provided to teachers and other employees at nominal cost (Figure 22).  

A number of other government facilities were developed in Kayenta. In 1966, the United States Public Health

Figure 21

Figure 22
Typical two-bedroom housing unit provided for Kayenta Elementary School employees. (Photographed November 24, 1967).
Service (HEW) opened a medical clinic with service restricted to local Navajos (Figure 23); Anglos are only treated in cases of extreme emergency. More substantial medical facilities are provided to both Navajo and Anglo at a Seventh Day Adventist hospital near Gouldings, Utah (Map 3).

A separate United States Post Office facility was opened in Kayenta in October, 1965 (Figure 24), replacing the postal service formerly located in the Warren Trading Post. Kayenta is located along what was known as a "Star Route System", meaning that all mail has to be picked up at the post office, there is no rural delivery service. Beginning in 1965, arrivals and departures were scheduled twice a day, at 10:30 a.m. from Mexican Hat, Utah, and at 2:30 p.m. from Flagstaff. 66 This represents a marked improvement over that which had existed since 1942, when mail was delivered to Kayenta from Flagstaff only three times per week. 67 At that time even mail from Utah was routed through Flagstaff.

A Navajo Chapter House was formally opened in 1967.

66 Mrs. John Zufelt, Postmistress, Kayenta, personal communication (November 24, 1967).

Figure 23

Figure 24
United States Post Office at Kayenta.
(Photographed November 24, 1967).
This facility (Figure 25) serves as the community center as well as the headquarters for the local elected representative to the Navajo Tribal Council, which meets at Window Rock (Map 3). The chapter house is also the place where meetings on items of community wide interest are held. These meetings might be concerned with such topics as the delimitation of grazing districts, the determination of other types of boundaries, and recommendations on land leases.

One of the major social problems on the Navajo reservation is the high degree of unemployment among Navajo men. In 1966, the State of Arizona Employment Service opened a temporary employment office in Kayenta (Figure 26). This facility was primarily established to facilitate the placement of Navajos in part-time off-reservation jobs. Only twenty-five per cent of the Navajos that have filed with the Employment Service in Kayenta are full-time or part-time wage earners; about seventy-five per cent are engaged in raising livestock, primarily sheep, cattle and

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68 The operation of the Tribal Government, as it relates to the development of Kayenta, will be briefly discussed in Chapter V.

69 Rev. John Beck, see n. 51.
Figure 25
The Navajo Chapter House
(Photographed November 24, 1967).

Figure 26
State of Arizona Employment Office
(Photographed November 24, 1967).
donkeys. Plans for a permanent employment office were being made in 1967, although the temporary structure was still in existence in 1968.

The Department of the Interior, Bureau of Indian Affairs, also maintains an office in Kayenta. The services provided there are an extension and expansion of the services originally provided in conjunction with the boarding school. The office is staffed with a land management advisor, a plant manager and a soil conservationist.

Although numerous churches were listed in the church directory of the Navajo Times, as offering religious services in Kayenta, only two, in addition to the previously mentioned Presbyterian Church, have provided permanent facilities. The two facilities under construction in 1967 and 1968 were a Catholic Church (Figure 27) and an Assembly of God Church (Figure 28). One reason cited for the lack of construction of permanent church facilities is the

70Julius C. Young, Field Office representative, Arizona Employment Service, personal communication (November 27, 1967).


72Navajo Tribe, The Navajo Times (Window Rock), Vol. 9, No. 20, p. 24 (May 16, 1968), is just one example. The various churches are listed about every other week.
Figure 27
Catholic Church and Mission
(Photographed November 24, 1967).

Figure 28
Navajo Assembly of God Church
(Photographed November 24, 1967).
nature of their land leases. Land leases for religious organizations are in the form of revocable permits, thus they offer no guarantee of a specific minimum time period, over which the cost of a structure could be amortized.\textsuperscript{73}

The remaining corners of the intersection of U.S. 164 and Arizona 464 were developed with highway and tourist oriented uses. Two service stations in addition to the American Oil station were developed. A Conoco Oil Company service station was developed on the southeast corner as a result of a lease approved in 1964. A lease for the southwest corner was granted in 1966 and a Standard Oil service station was constructed. A fourth service station lease site was approved for the northeast corner in 1966, but as of May, 1968, construction had not yet begun.\textsuperscript{74}

The Monument Valley Inn, located next to the Standard Oil service station with frontage on U.S. 164 was completed and opened in 1966, as the result of a lease issued in 1963 (Figure 19).\textsuperscript{75} The Inn has 100 motel-type units, an apartment for the manager, a gift shop, coffee shop and dining room.

\textsuperscript{73} Jerome Ray, see footnote no. 57.  
\textsuperscript{74} Idem.  
\textsuperscript{75} Idem.
Another gift shop was opened in 1966 next to the airstrip and just east of the leased, but not developed, service station site. This gift shop, however, was developed by the Navajo Arts and Crafts Guild, a non-profit self-help organization sponsored by the Navajo Tribe.

Some time between 1963 and 1967, a trailer was moved onto the American Oil service station site for use as a coffee shop, practically completing the development of that corner.

By the end of 1967 two clusters of urban related facilities had developed in Kayenta. The major cluster, located in the center of town, is an expansion of the initial trading post and subsequently developed government facilities. This cluster forms a core for the community, offering a variety of retail and commercial services, as well as a number of public facilities and government services. Although many of these activities relate to the steadily increasing tourist industry, most are oriented to providing goods and services for the indigenous population.

The second and smaller cluster of facilities developed approximately one mile south of the core, at the intersection of the two recently established highways, U.S. 164 and Arizona 464. This cluster is oriented to persons traversing those two highways, although more
emphasis is given to the business frontages along U.S. 164.

The seemingly organized pattern of housing observable in most urban and quasi-urban areas of the United States is not manifested in Kayenta. The random or scattered pattern observed in Kayenta, with the exception of the government housing compounds, is more typical of the housing situation found in areas surrounding the urban cores of many developing nations. Evidence of a desire to change this situation was visible in Kayenta in 1968 and will be discussed in the following chapter.

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CHAPTER IV

KAYENTA IN 1968

To the casual observer passing through the Navajo Reservation, Kayenta appears more developed than most settlements and less developed than others. It offers a variety of services to tourists and travelers, not generally available in similarly remote areas of the reservation, including those located along transportation routes.

Kayenta is a focal point for tourist activity in the northwestern portion of the reservation. The community, however, has a much greater raison d' être than can be observed in the few minutes it may take to drive through town.

Kayenta is in reality multi-faceted, in that it has industrial capabilities, it provides many service functions, it is capable of supporting a number of retail establishments; and it is developing a wide variety of housing types.
Major Economic Activities

As of 1968, two major categories of economic activity existed in Kayenta and a third was being developed.

The Boarding School

The boarding school activity of the federal government is here considered to be a major economic activity, i.e., it employees large numbers of people in the community while it receives the money to support the activity from a source outside the community. Under this assumption many other government services could also be considered as industries, but a distinction is made herein that these other, non-boarding school, activities of the government are primarily oriented to providing services of limited extent to the residents of Kayenta and its environs. The boarding school, since the inception of the public day schools in 1958, only accepts children who reside more than one and a half miles from the day school bus route. Thus, it does not serve what can be considered the immediate Kayenta area.77

The relationship between the boarding school and Kayenta is similar to that which exists between small

77Cleo K. Sumter, see n. 65.
university towns and the universities located in them.

In addition to providing for grades kindergarten through seventh for the total Kayenta service area, the boarding school accepts students from Chilchinbito (Map 3), where only kindergarten, first and second grades are taught, and from Dinnehotso (Map 3), which only has facilities for grades kindergarten through fifth. Thus, the total service area, containing over 1000 square miles, encompasses an area generally bounded by Red Lake, Chilchinbito, Mexican Hat and Oljato (Map 3). The completion of school through the eighth grade is accomplished by transferring some of the boarding school students to Phoenix for the seventh and eighth grades and others to Tuba City for the eighth grade.

Seventy-three persons are employed by the boarding school, thirty of whom are professionals, i.e. educators, counselors, and administrators, who originally came from areas outside the reservation. The remaining employees are paraprofessionals, primarily Navajos involved in working in the dormitories as home living and guidance personnel. Additional personnel are involved to varying degrees with the boarding school, including maintenance workers, but these persons are actually hired by the BIA's local
plant management office.

Food and laundry services for the boarding school are contracted out. The food supplied follows an approved master menu, which is developed at the area level. Thus, the school does not only act as a major economic activity, but it is responsible for the existence of a small number of ancillary businesses.

The Tourist Trade

The tourist trade in Kayenta is comprised of four different types of activities. These activities or functions are related to the provision of food and lodging; tour services and equipment; non-community oriented automobile service and supplies; and gift and souvenir items.

The food and lodging services are supplied by four businesses, three of which operate under the authority of a land lease from the Navajo Tribe. The largest facility, the Monument Valley Inn, was recently purchased by a major motel chain, Holiday Inn. As previously noted, this facility contains 100 guest rooms, an apartment, a coffee shop and dining room, and a gift shop. The owners of the Wetherill Inn, which contains thirty-nine guest rooms,
were rumored to be considering adding a coffee shop to their motel facilities, but these plans have apparently not materialized.\textsuperscript{79} The oldest facility, the Kayenta Lodge and Cafe, has about ten guest units in addition to the small cafe. The fourth facility, operating by arrangement with an existing lease-holder, is the trailer-type diner located on the American Oil service station site, at the intersection of U.S. 164 and Arizona 464.

The town boasts two tour businesses. One, Monument Valley Air Service, offers a few planned tours, but the service is more frequently utilized for special charters. The second is Golden Sands Tours. This company operates a number of four wheel drive vehicles for excursions into Monument Valley (Map 3). Although the company does maintain an office in town (Figure 29), most tours are arranged through the Monument Valley Inn and Wetherill Inn.

The third group of tourist oriented activities is the servicing and supplying of tourist's vehicles. To this end, three major service stations are located at the intersection of U.S. 164 and Arizona 464 (Map 6 and Figure 19). Although some of the indigenous population utilizes these service stations, most Navajos make their

\textsuperscript{79}Ibid., p. 159.
Figure 29

Headquarters for Golden Sands Tours
(Photographed May, 1968).

Figure 30

Offices of Branch of Land Operations
and Plant Management, B.I.A.
(Photographed November 24, 1967).
gasoline purchases from the trading posts, and have their vehicles serviced at Smith's Garage.

The major gift and souvenir facility in Kayenta is that operated by the Navajo Arts and Crafts Guild, a non-profit organization, authorized by the Tribal Council. The facility is located next to the air strip (Map 6) with frontage on U.S. 164, and sells Navajo handicrafts gathered from all areas of the reservation. A smaller but active gift shop is located in the Monument Valley Inn.

The Coal Mine

In the early 1950's limited coal mining was done on Black Mesa (Map 2). As previously noted, these mines were not commercially successful and were discontinued prior to 1956. Apparently in addition to the extraction difficulties, due to the thin beds, a major deterrent to production was transportation costs, resulting from distances the coal had to be trucked.

The Peabody Coal Company, in 1960, executed leases with both the Navajo and Hopi Tribes for the right to

mine coal on Black Mesa. Current legal difficulties over the division of revenues from the area where the coal mine exists necessitated the two leases. The lease requires the production of 117 million tons of coal within a thirty-five year period, beginning in 1970. The mine site is near to the two previously active mines (Map 2), approximately forty miles by road from Kayenta.

These leases and the reactivated interest in mining for coal on Black Mesa resulted from the issuance of a five hundred million dollar contract to Peabody Coal Company by Southern California Edison, to have 117 million tons of coal delivered to their steam generating plant at Davis Dam, near Bullhead City, Nevada, 275 miles away, over a thirty-five year period (Map 3). The coal will be transported to Davis Dam through a pipeline, similar to the method for transporting oil. The coal will first be pulverized, mixed with water and sent through the pipe under a combination of hydraulic pressure and gravity flow.

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81 Chuck Turner, Engineer, Peabody Coal Co., Kayenta, personal communication (May 6, 1968).

82 Previous to the discovery of coal on Black Mesa, the area was not occupied in modern times, except by occasional shepherders. Therefore, jurisdictional problems did not predate coal mining.
This method of transporting coal has not previously been used in the southwest. 83

Twelve persons were employed by Peabody Coal Company in 1968. They worked out of two temporary offices, one at the mine site and one in a guest room at the Wetherill Inn. It was anticipated that when full production is reached, over 100 persons would be employed.

The Non-Tourist Service Function of Kayenta

The service functions provided at Kayenta for the local population, emanate from a variety of sources, including the federal and state governments, the Navajo Tribe, the public school district, the churches, and commercial establishments.

Aside from the boarding school, which is herein considered a major economic function rather than a service supplied for local residents, the federal government directly sponsors a number of services. It operates a land management office which provides a variety of advisory services for the Navajos, under the auspices of the BIA (Figure 30). The Department of Health Education and

83 Chuck Turner, see n. 81, indicated that two similar operations existed in the east and that one had been in operation in Wyoming, but had been discontinued.
Welfare (HEW) and the BIA maintain a clinic exclusively for the use of the Navajos (Figure 23). Moreover, a post office has been maintained as a separate facility by the Post Office Department since 1965, when it was relocated from the Warren Trading Post.

The State of Arizona provides funds for the continued operation of the public day schools, Kayenta Elementary School (Figure 13) and Monument Valley High School (Figures 31 and 32). A second elementary school site containing 19 acres has been secured (Map 6), and a school will be constructed as soon as school enrollment warrants it and funds are available. In addition the State of Arizona provides a temporary employment office (Figure 26), and a highway maintenance yard. The State has plans to construct a permanent employment office.

Approximately 250 persons are employed by the federal and state agencies on either a full-time or part-time basis, excluding those who work directly for the boarding school.

Two main facilities provided by the Navajo Tribe are the community center, i.e. the Kayenta Chapter House, and the Navajo Tribal Utility Authority (NTUA), and related wells, storage tanks and an electrification system.
Figure 31
Monument Valley High School
(Photographed November 24, 1967).

Figure 32
Aerial view of Monument Valley High School, looking north.
(Photographed May 6, 1968).
Although no persons are employed in conjunction with the community center, approximately thirty persons work in the NTUA's Kayenta office.84

The Navajo Tribe in 1968, appropriated two hundred thousand dollars for a multi-purpose building to include facilities for the Navajo Police, who currently use an older converted building (Figure 8). (Three Navajo policemen are currently stationed in Kayenta.) Construction estimates indicate that an additional fifty thousand dollars will be required to provide the desired facility. Therefore, it is not anticipated that the building will be constructed until additional revenues can be obtained.85

Three churches maintain permanent facilities in Kayenta for the conduct of religious services and various charitable activities. These are the Presbyterian Church (Figure 17), the Catholic Church (Figure 27), and the Assembly of God Church (Figure 28). These churches provide educational experiences for older Navajos as well as more usual activities for children, e.g. Sunday school. The churches also distribute items of food and clothing to needy families through such activities as low-priced

84Ruth Anne Benallie, see n. 63.
85Bob Taylor, see n. 71.
rummage sales. About ten persons are engaged in full time religious work.

On a slightly different vein than those services performed in the public interest, a number of services are performed by the local merchants, most notably the traders at the Kayenta and Warren Trading Posts. These traders often act as bankers, pawn brokers and purchasers of livestock and locally manufactured items, primarily jewelry and blankets. 86

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**Retail Sales in Kayenta**

Kayenta’s retail businesses are primarily oriented to the supply of daily necessities, food and clothing (both finished clothes and yardage). The trading posts still carry an assortment of items usually thought of as sundries. Most large, non-food items are purchased by Anglo and Navajo alike in Flagstaff, Gallup or Window Rock or via a mail order catalog. Some small appliances, such as radios and televisions, are carried by Smith’s Garage. According to Kayenta’s soil conservationist, Dilford

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86 William Y. Adams, Shonto: Study of the Role of the Trader in a Modern Navajo Community, Bureau of American Ethnology Bulletin 188 (Washington: GPO, 1963). This study provides general information on the overall relationship between the trader and the community; John Zufelt, see n. 45.
Hutchins, Smith's Garage had applied for a change in their land lease to officially change their name to Kayenta Motors, and to expand their retail activity through the establishment of a new and used car and truck sales facility.

In 1968, the Kayenta Trading Post, expanded its facilities (Figures 33 and 34) through a large addition to their building. The addition, referred to as a supermarket by some residents, is in approximately the same location as the original Wetherill Trading Post. The Kayenta Trading Post is also the only trading post currently maintaining a corral for livestock, either for shipment off the reservation or for sale to Navajos (Figure 35).

Even though Kayenta is lacking a wide range of retail activity in the form of specialty shops, all items of daily necessity as well as a few luxury items, are provided locally.

Housing

Perhaps the most noticeable event affecting the townscape of Kayenta in 1968, has been the construction of

87 Personal communication (May 6, 1968).

88 John Conrad, Manager, Monument Valley Inn, Personal communication (November 24, 1967).
Figure 33
The Kayenta Trading Post with addition under construction.
(Photographed November 24, 1967).

Figure 34
The Kayenta Trading Post with Expansion completed.
(Photographed May, 1968).
Figure 35
Corral at Kayenta Trading Post
(Photographed May, 1968).

Figure 36
Cluster of Navajo Dwellings
(Photographed May, 1968).
substantial non-Navajo dwellings for the Navajo population. Up to this point in time only Anglos, living in the housing compounds on either federally managed or school district property, or living in the few private dwellings, had substantial permanent housing, i.e., in the form of free standing multiroom houses or apartments, complete with all utilities.

Traditional Housing in Kayenta

The Navajos had, until 1968, lived exclusively in either traditional or modern hogans, in trailers, as do many Anglos, or in dwellings contrived from a combination of hogans and trailers.

The Navajos' dwellings are scattered throughout the townsite, many in family groupings. This scattered pattern is due to the social organization of the Navajo family, in which a married man traditionally makes his home adjacent to the homes of his wife's relatives. Thus, the extended family, matriarchal in character, is preserved. The separation of clusters of extended family dwellings, is a remnant of the pastoral basis of the Navajo economy, where each group located in areas where they had, by tradition, grazing rights. Some clusters are close to irrigated areas where limited farming still
occurs. Others are located convenient to power lines, water lines or wells. The pattern appears very haphazard, with dirt tracks serving as roads, criss-crossing the entire townsite. Figures 36 and 37 illustrate this settlement pattern.

The traditional hogans are round or octagonal, about fifteen to twenty feet in diameter, and about eight to ten feet high at the center. The openings are limited to a single door, facing east, and a vent in the roof for the central stove. This arrangement permits the wind to blow various ghosts or demons, that bring sickness and other bad luck, out of the hogan. The modern hogan is approximately the same size. It may, however, be rectangular rather than round. Materials vary from the traditional sticks and mud, to include locally quarried stone, concrete block and timber. The modern hogan, although maintaining the traditional opening on the east side and single vent, may include a number of windows. Figure 39 shows in more detail the arrangement of one Navajo family's housing facilities, which this writer had the privilege to visit.

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89 Dilford Hutchins, see n. 87.
Figure 37
Aerial view of a cluster of Navajo dwellings.
(Photographed May 6, 1968).

Figure 38
Aerial view of NBA low-income housing, looking northwest.
(Photographed May 6, 1968).
FIGURE 39

Housing for One Navajo Family in Kayenta

(Lee Bradley, Sr. Family Residence)
Alternative Forms of Housing

The potentials for housing in Kayenta are great. Basically there will be a total of five housing options available to various groups of Navajos, only two housing options were in existence in 1968. The first option is to continue in the present style of dwelling. Various grants and low interest loans are being made available for the improvement of these dwellings, especially for those improvements that will promote better health.

The second source of housing for Navajo families in Kayenta, is the fifty unit low-income housing project, which became available for occupancy on April 1, 1968. This housing is provided to low income families that qualify under the income limitations established by the Department of Housing and Urban Development (HUD), in approving a grant to the Navajo Housing Authority (NHA), the developing agency (Table III). 90

The first housing unit was occupied on April 8, 1968, and only eight units remained vacant on May 6, 1968. Harold Hershey, NHA management aide, an Anglo, indicated that two more families were moving in in May, 1968,

TABLE III

HUD SPONSORED NAVAJO HOUSING AUTHORITY LOW-INCOME HOUSING

INCOME QUALIFICATIONS FOR RENTERS

<table>
<thead>
<tr>
<th>Number of Persons in Family</th>
<th>Annual Income (after exemptions) for Occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Initial Admission</td>
</tr>
<tr>
<td>1</td>
<td>$3,000</td>
</tr>
<tr>
<td>2</td>
<td>4,000</td>
</tr>
<tr>
<td>3</td>
<td>4,200</td>
</tr>
<tr>
<td>4</td>
<td>4,400</td>
</tr>
<tr>
<td>5</td>
<td>4,600</td>
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<tr>
<td>6</td>
<td>4,800</td>
</tr>
<tr>
<td>7</td>
<td>5,000</td>
</tr>
<tr>
<td>8</td>
<td>5,200</td>
</tr>
<tr>
<td>9</td>
<td>5,400</td>
</tr>
<tr>
<td>10 or more</td>
<td>5,600</td>
</tr>
</tbody>
</table>

*Exemptions include amounts paid by U.S. government for death or disability occurring in connection with military service.

that they have approximately fifty applications for the remaining six units.\textsuperscript{91} The rental structure for the units varies with the families ability to pay, considering both income and family size, with a range of monthly rents from $28.00 to $70.00 (Table IV). The units are all detached single family dwellings with three sizes available: a two bedroom unit, a three bedroom unit, and a three bedroom unit with one extra large bedroom.

The units cost the NHA an average of $14,000.00 each, including all improvements. The improvements included a paved street system within the development, utilities, and a stove and refrigerator in each unit. Flexibility is maintained by NHA concerning the improvements surrounding the homes, i.e. fencing and landscaping, which can be installed by the occupants (Figure 38).

The low-income housing project is located on a 12.58 acre site, approximately midway between the core of Kayenta and the cluster of commercial activities at the intersection of U.S. 164 and Arizona 464 (Map 6). Access is provided from Arizona 464.

Three other alternate forms of housing are being planned for Kayenta. These include a self-help or mutual-

\textsuperscript{91}Personal communication, May 6, 1968.
### TABLE IV

RENTAL SCHEDULE FOR NHU LOW-INCOME HOUSING*

<table>
<thead>
<tr>
<th>Unit size</th>
<th>Number of Units</th>
<th>Rental Charged</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Built</td>
<td>Vacant**</td>
<td>Minimum</td>
</tr>
<tr>
<td>2 bedroom</td>
<td>10</td>
<td>1</td>
<td>$28.00</td>
</tr>
<tr>
<td>3 bedroom</td>
<td>20</td>
<td>4</td>
<td>$28.00</td>
</tr>
<tr>
<td>3 bedroom with one extra large room</td>
<td>20</td>
<td>3</td>
<td>$28.00</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>8</td>
<td>$28.00</td>
</tr>
</tbody>
</table>

*rental value includes utilities

**as of May 6, 1968, see page

**SOURCE**: Harold Hershey, NHU Management Aide, Kayenta, May 6, 1968.
housing project by the NHA and land management office
(Map 6). The original allocation to the Navajo Reserva-
tion for this federally-funded project was 500 units, with
only twenty units scheduled for Kayenta. There have been
indications that some of the units originally scheduled
for Tuba City might be reappropriated for Kayenta. The
NHA originated the request for federal aid for this pro-
ject, which is designed to be completed on a cooperative
basis by those who will occupy the units. Upon completion
the units will be administered by NHA.92

Approximately 110 mobile home sites are proposed to
be developed on a sixteen-acre site, also located along
Arizona 464 (Map 6). It is anticipated that these sites
will be occupied by Anglo and Navajo mobile home owners.
The sites' rentals will probably include utilities and the
use of limited recreational facilities.

The last type of housing being considered for devel-
opment in Kayenta, is an approximate 260-lot, 170-acre
subdivision, where the land will be leased to individuals
and privately developed. The site is on Wetherill Mesa
(Map 6), and many lots will have views of the surrounding

92Melvin R. Gardner, Executive Director, NHA,
Window Rock, personal communication (April 30, 1968);
and Harold Hershey, see n. 91.
landscape.

Kayenta was in 1968, a growing community, anticipating the construction of housing for an increasing population. Two hundred and sixteen permanent multi-room housing units were located in Kayenta in May, 1968 (Table V). Approximately 400 to 600 miscellaneous housing units are available in the Kayenta area providing housing for a population of from 1500\(^{93}\) to 2000\(^{94}\) persons. It is anticipated that at least 450 more housing units will become available in the near future, providing for a population of approximately 3000 to 4000 individuals. This larger population in turn will generate demands for additional goods and services to be provided by both public and private sources.

Kayenta in 1968 was still in many ways illustrative of the older style reservation settlements with a boarding school, admittedly larger than most, old style trading posts, clusters of hogans and even herds of sheep and donkeys grazing within the town site. But by that time these features were becoming suppressed by the features that reflected the image of a growing community--a public

\(^{93}\)Harold Hershey, see n. 91.

\(^{94}\)School District No. 27, Kayenta, untitled, undated mimeographed sheet.
TABLE V

PERMANENT MULTI-ROOM HOUSING IN KAYENTA IN 1968*

<table>
<thead>
<tr>
<th>Source of Housing</th>
<th>Size of Housing Unit</th>
<th>Total Number of Units</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Efficiency</td>
<td>1</td>
</tr>
<tr>
<td>Federal employees</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>School district</td>
<td></td>
<td></td>
</tr>
<tr>
<td>employees</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Public housing</td>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Includes both houses and apartments
school system, modern motels, a utility system, a housing project, road improvements, modernized stores, new government facilities, and so on. The outstanding feature of Kayenta in 1968 was, therefore, the predominance of new or nearly new facilities, reflecting the activity that had taken place since 1955 (Chapter III).

This growth offers great potentials for Kayenta's present and future residents, but it also presents some problems.
CHAPTER V

PROBLEMS AND PROSPECTS

During the period which is covered in this study, the early 1910's through 1968, Kayenta has obviously been developing both physically and economically. This growth offers many advantages to the Navajos and Anglos living in the community; primarily those advantages relating to increases in the still relatively poor standard of living. The problems associated with this growth generally relate to the relationship between the development of the town and the cultural and physical environment. The retention of control over the land within the reservation by the Navajo Tribe offers many potentials for achieving an economically sound, as well as livable, urban environment.

**Defining Kayenta**

To develop a coordinated plan or program for the growth and development of a community requires that the community be defined, not only in terms of its boundaries, but in terms of its resources, human and material.
Kayenta's Boundaries

One major problem facing the Navajo Tribal Council in 1968, in regard to Kayenta, was to define the area boundaries of the Kayenta townsite. The largest boundary considered encompasses a ten-square-mile area, and is the one favored by the Kayenta Chapter of the Navajo Tribe. This boundary is politically more desirable at the local level, as it includes many of the influential Navajos residing in the Chapter area but outside of the more developed and smaller community area.95

The community boundary proposed by BIA's Land Management Division encompasses a much smaller, four and one-half square mile, area (Map 6). This boundary has been tentatively approved by the Navajo Tribal Council, but was still being revised as of May 3, 1968. All changes being considered fell between the maximum and minimum boundaries suggested by the Chapter and BIA, respectively. It appeared likely at that time that a lesser rather than larger area would finally be selected due to a number of factors. These included a loss in control over the townsite area; a limitation on development sprawl; an apparent

95Bob Taylor, see n. 71.
desire to concentrate growth along existing highways; and the difficulty of developing plans acceptable to all the people living in as large an area as that proposed by the Kayenta Chapter.96

Another kind of boundary was also being considered for Kayenta in 1968. That boundary was for a fire district (Map 6), and is indicative of the portion of the townsite that is either already developed or will be developed in the relatively near future.97 It therefore represents an area over which controls should be exercised, as the lower insurance rates within the fire district would be an incentive for businessmen to locate there regardless of the controls imposed.

Human Resources

As noted in Chapter IV, Kayenta's population in 1968 was approximately 1500 to 2000. Comparative figures for other communities are not available; however, in 1958 a survey of Tuba City indicated a population of approximately

96 Idem; and Wilfred Brown, Draftsman, Office of Urban Planning, Division of Programs, BIA, personal communication (April 29, 1968).

97 Idem.
1000 for the subagency headquarters. Assuming a steady three to three and one-half per cent per year increase of population in Tuba City, its population would be equivalent to that found in Kayenta.\footnote{Robert W. Young, \textit{(ed.)}, \textit{The Navajo Yearbook} (Window Rock, Navajo Agency, 1961), pp. 309, 321.} Tuba City does, however, appear to be a much larger community than Kayenta.

Although no statistics were tabulated for Kayenta in the United States Census of Population, they were collected and tabulated for an area known as the Monument Valley Division, which encompasses the northern thirty-five miles of Navajo County, Arizona, an area containing approximately 2000 square miles (Map 3).\footnote{U.S. Bureau of the Census, \textit{U.S. Census of Population}, Vol. 1, \textit{Characteristics of the Population}, Part 4, Arizona (Washington: G.P.O., 1963), Table 25, pp. 35-37.} A rough estimate would indicate that approximately thirty-five to fifty per cent of the people in the Monument Valley Division live in Kayenta.

By making the assumption that Kayenta is proportionately representative of the entire division, certain demographic information becomes available (Table VI). It should be noted that this assumption is not entirely valid due to a number of observable facts: almost the entire white and Negro population of the division resides in Kayenta; a
TABLE VI
DEMOGRAPHIC DATE - 1960
MONUMENT VALLEY DIVISION, ARIZONA

<table>
<thead>
<tr>
<th>Sex</th>
<th>Number</th>
<th>Per cent</th>
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<td>Female</td>
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<td>49.8</td>
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</table>

<table>
<thead>
<tr>
<th>Race</th>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4.9</td>
</tr>
<tr>
<td>Negro</td>
<td>12</td>
<td>0.4</td>
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<tr>
<td>Other</td>
<td>3069</td>
<td>94.7</td>
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</table>

MARITAL STATUS PERSONS OVER 14 YEARS OF AGE

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Percent</th>
<th>Female</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Single</td>
<td>287</td>
<td>35.5</td>
<td>289</td>
<td>31.1</td>
</tr>
<tr>
<td>Married</td>
<td>513</td>
<td>63.4</td>
<td>531</td>
<td>57.2</td>
</tr>
<tr>
<td>Widowed &amp; Divorced</td>
<td>9</td>
<td>1.1</td>
<td>109</td>
<td>11.7</td>
</tr>
</tbody>
</table>

greater number of single people live in Kayenta than in other areas of the division; and a greater number of women than men live in the community, whereas the groups are almost equal in the division as a whole. In the absence of other data, this information, although not conclusive, is worthy of note.

The population pyramid developed in Figure 40 and the demographic data presented in Table VI indicate two interesting phenomena concerning Kayenta's population. First, there is a larger proportion of the population in the age group five through fourteen than might be expected. This can be attributed to two factors: the post World War II "Baby Boom"; and to the boarding school located in Kayenta. In this last regard Kayenta would have retained a higher portion of this age group than other areas within the Monument Valley Division. Current estimates indicate that the Navajo population on the entire reservation is growing at approximately three per cent a year.\textsuperscript{100} When the 1970 census data becomes available a higher growth rate is anticipated by this writer to be evidenced in the

FIGURE 40

POPULATION PYRAMID - 1960

MONUMENT VALLEY DIVISION, NAVAJO COUNTY, ARIZONA

Age in Years

65+
55-64
45-54
35-44
25-34
15-24
5-14
0-4

% Males
% Females

Monument Valley Division and other areas of the reservation where urbanization is taking place, e.g., Window Rock, Shiprock, and others. This would result from a shift in residence patterns by the Navajos availing themselves of programs, e.g., low-cost housing, as well as part-time and full-time employment opportunities, in and around these centers.

The second item of interest is the comparatively large number of women that are divorced or widowed. This may be due to two factors. These are: more women than men live in the area; and men that are divorced or separated tend to move to other areas due to the matriarchal structuring of the Navajo society. To some extent this phenomena may also be reflective of the number of Anglo women that are divorced or widowed working in the public or boarding schools.

The educational level of the Navajos in Kayenta is relatively high due to the location of a public high school in the community operated by a locally elected board of education. This increasing level of education may have the effect of creating the desire in some Navajo to leave the reservation. The Navajo Tribe is, however, placing great emphasis on having Navajos maintain an interest in
remaining on the reservation. One result of this emphasis has been the opening of the first college on an Indian reservation in the United States, Navajo Community College, a two-year college, with an all Navajo Board of Regents, opened in 1968 at Many Farms, Arizona (Map 3).

The per capita income level of the Navajos in 1960 was $521.00; the value of government services, provided to the Navajo at no cost, increased this amount to $645.00. This is approximately one-fourth of the 1960 per capita income level in the United States, i.e., $2,116.00.\textsuperscript{101}

The income level of persons living in Kayenta is probably higher than the Navajo average. This potentially higher average income relates directly to the number of persons employed on a regular basis by the tribe, various public agencies and commercial facilities. In issuing commercial land leases to various developers, the Navajo Tribe conditions the lease with the requirement that the operator hire primarily Navajo personnel. The exact percentage of the Navajo to Anglo personnel requirement varies with the type of activity.\textsuperscript{102}

\textsuperscript{101}Ibid., p. 235.

\textsuperscript{102}Jerome Ray, see n. 57.
Physical Resources

The existing and anticipated physical resources, and the permanent facilities as well as the economic resources they represent, can form a substantial base on which to build a larger community. There are, however, certain resources which need to be expanded, primarily those relating to commercial services, before Kayenta can offer a full complement of facilities. One of the commercial services being planned in 1968 was a laundromat; another needed facility, according to some residents, is a barber shop.

This writer fully anticipates that these facilities and others will be provided as the population increases.

Development Problems

Public transportation between Kayenta and other areas of the reservation, notably the subagency headquarters at Tuba City and the Tribal and Agency headquarters at Window Rock is nonexistent. Greyhound Bus Lines provides service to Flagstaff and Continental Trailways provides services to Shiprock via Gallup (Map 3). This lack of transportation has many social implications among the Navajo living at Kayenta who need to get to such facilities for services or various forms of aid. One instance where such a lack of transportation is a problem concerns the
enforcement of laws. Although three tribal policemen reside in Kayenta, the nearest courts and jail facilities are in Tuba City. Due to the difficulty of getting people to court, many laws go unenforced, and many civil matters go unsettled.

A more relevant problem to the purpose of this study is the arrangement of land usage through the release of land leases without any overall plan for the development of the community. This unplanned growth can lead to the same problems being experienced by more developed urban areas, notably to conflicts between types of uses created through lack of separation by buffering and planned use of open space. In other cases the problems relate to creating a poor environment due to the almost continuous exposure of commercial activities to residents and tourists alike. While these activities support the community now, they will be detrimental to its future development.

In an area where little competition exists and where there is a continuing demand for services offered, the use of advertising techniques such as large signs (Figure 12) and off-premise directional signs (Figure 29) are not needed, nor is the kind of automobile junk yard maintained by Smith's Garage (Figure 14).
The Land Management Office of BIA anticipates that a strip of land 160 feet deep, fronting on Arizona 464, will be developed commercially. This strip of land generally separates existing and proposed residential developments from the highway (Map 6). An office for the Arizona State Employment Office, a laundramat and a drive-in restaurant facility have been proposed to occupy a portion of that frontage. The remainder is undesignated. This authorization of lineal commercial development, i.e., "strip commercial," while offering potential for a large number of smaller commercial developments, may result in the development of a string of competing commercial developments that can blight the community, making it unattractive to residents and tourists alike.

The Kayenta Chapter of the Navajo Tribe represents a larger division of the Navajo Reservation than the area occupied by the community of Kayenta. People from the outlying areas attend the meetings and participate in the decision making process, while many people in Kayenta have little interest, and in the case of the Anglo, no voice, in the decision making process.\textsuperscript{103} This lack of involvement by the people living and working in Kayenta can

\textsuperscript{103} Wilfred Brown, see n. 96.
affect greatly the role and growth of the community. Recommendations on such items as determinations of boundaries and granting of leases should be made by the people most readily involved with the outcome of the decision. Not only do people have to become involved in the decision making process, but guidelines or criteria should be developed to aid in the decision making process.

The Office of Planning, under BIA's Division of Programs, has one professional planner on the staff. The Navajo Tribe has applied for federal funds under Title V of Public Law 701, for the purpose of hiring planning consultants to prepare general plans for various as yet undetermined areas of the reservation. One plan has been completed, although not adopted, for a planned new town development just north of Window Rock, Arizona.104 Problems exist, however, in the developing areas and these should demand first priority.

Prospects and Recommendations

Kayenta has a good base upon which to build: there is continued industrial potential; a relatively stable and educated population; an increasing housing supply; and a

104 Idem.
basis upon which continued commercial activities may expand. The route this building process takes can be the determinant of whether or not Kayenta will experience the environmental problems of most urban areas.

To achieve the development of an environment which reflects the physical setting and cultural heritage of the indigenous people requires the foresight of the residents of Kayenta and the Navajo Tribal Council. To do this two steps must be taken. First, the area must be defined so that those developing the plan know what they are working with; and second, the participation of all groups must be obtained in the planning process.

A number of items should be considered during the planning process, and their affects on the community carefully analyzed.

1. The clustering of residential development should occur regardless of the economic constraints of the development. In particular the low cost, self-help and public housing should not be located so that the residents are isolated from those persons or families building private residences in subdivisions, a factor which might divide the community;

2. Housing should be made available to Anglos as
well as Navajos to help close the gap between the two
groups and to eliminate the need for the scattering of
trailers throughout the area;

3. Plans should be developed to create a number of
residential neighborhoods, each with its own elementary
school and local shopping facility;

4. A number of clusters of tourist oriented, and
larger, commercial facilities should be developed rather
than creating a continuous linear pattern of commercial
activities where services for residents would conflict
with those for tourists;

5. Wide, natural open spaces and irrigated, land­
scaped open spaces should be maintained between different
types of land uses and between major highways and the ad­
jacent uses; and

6. A Navajo culture oriented and architecturally
compatible building style or pattern should be adopted to
maintain the flavor of the environment within the build­
ings. One existing example is the hogan design of the
high school (Figures 31 and 32).

Each of the above items involves expenditures of
funds by the Navajo Tribe and developers. But by control­
ling the leasing of the land, relating each development to
a concept for the future and reinvesting the income derived from the land leases in public facilities, the creation of a livable environment can be assured. With effort Kayenta can become a model urban environment for the entire Navajo Reservation.
SUMMARY AND CONCLUSIONS

In terms of the stated purpose of this study, the research has revealed that Kayenta was originally settled by Anglos for the purpose of establishing commercial facilities for the conduct of trade with the Navajos. The selection of the site resulted from a number of factors relating to its location, as well as an apparent need for the traders to establish a new facility. This original settlement was subsequently expanded by the location of various government facilities at the site, as well as by the appeal of the surrounding environment, which stimulated the beginnings of tourist oriented activities in Kayenta.

Growth of the community was sporadic until major new facilities were provided by various government agencies, beginning in 1955. Since that time, the community has grown to one which performs many functions. An analysis of the variety of functions performed indicates that Kayenta does function as an urban place as defined herein. Its facilities provide for the sale of various commodities and for commercial services to the agricultural and
pastoral people of the surrounding area as well as for those living in the community. The boarding school, the tourist oriented facilities and the developing coal mine all provide important economic contributions to the community, particularly in the number of persons employed and money spent in the community. Public agencies have established a number of facilities in Kayenta to serve the people of the community and surrounding area; these include public day schools as well as advisory and service agencies. The high school at Kayenta is one of six provided on the Navajo Reservation and is one of only two provided in communities that are not agency or sub-agency headquarters, the other being in Chinle (Map 3). The Executive Director of the Navajo Housing Authority indicated that he liked the "...make-up of Kayenta--it is more balanced than other reservation communities."\textsuperscript{105}

On the basis of the information obtained, a service area cannot be definitely established for Kayenta. The service area of the Kayenta Boarding School may be an appropriate approximation. For some activities, such as trading, this area would be too large; for other activities, such as health services, it may be too small.

\textsuperscript{105}Melvin R. Gardner, Personal communication, April 30, 1968.
Considering the numbers and varieties of settlements on the Navajo Reservation, ranging from single trading posts to relatively large settlements such as Window Rock and Ft. Defiance, a study related to the delimitations of service areas or central place functions within the Navajo Reservation would be of value.

The Navajo culture has had very little influence on the form of settlement occurring in Kayenta. The Navajo, in addition to adopting Anglo house types, has accepted an arrangement of the units which reflects typical suburban form. This is in opposition to the endemic cluster arrangement of units, after the fashion of the Navajo's extended family pattern. Commercial and government facilities are primarily oriented to the main roads and arranged in a linear pattern, consistent with the example of existing automobile oriented urban development in the United States, but inconsistent with current planning philosophy, which supports the clustering of facilities. In addition to this consideration of their arrangement, the design of these facilities is not consistent with Navajo form or art, but is typical of the sterile structures found in most urban communities. One exception is the high school which was modeled after the hogan, as is the Navajo Council
Much of the data contained herein, if expanded by the studies of economists and demographers, can form the basis of a general plan program for Kayenta, providing that the people in the area and the Navajo Tribal Council can decide on three items, namely: the precise area of the town; the extent of the planning area which should be considered in conjunction with Kayenta; and, most importantly, the goals of the community. This last item should relate to the maximum population to be supported in Kayenta, the economic role of Kayenta in relation to the northwest portion of the reservation and to other centers, and the form of the community, Navajo or Anglo, that should be created.

This thesis was successful in that it has established the facts concerned with the origin of the community of Kayenta; it has determined that, although relatively small, Kayenta does function as an urban place; and it has determined that, as of 1968, Navajo culture has had little impact on the developments that have been occurring as a result of the activity of the Anglos. The thesis has not, however, determined what area is serviced by and identifies with Kayenta; and it has only partially provided data that can be used in the decision making process as it affects Kayenta.
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Sumter, Miss Cleo K. Administrator, Kayenta Boarding School, Bureau of Indian Affairs, (May 3, 1968).


Turner, Chuck. Field Engineer, Peabody Coal Co., (May 6,


Tuba City, Arizona


APPENDIX A

CLIMATOLOGICAL SUMMARY

The following data is from information collected by the Institute of Atmospheric Physics, University of Arizona and the U. S. Department of Commerce, Weather Bureau, for Kayenta Station (No. 02-4578-2).

The period of time for which data was collected on which the means were computed is 1916-1957. Extremes are tabulated through 1962.

Temperature (°F)

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<th>Daily Maximum</th>
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<th>Monthly</th>
<th>Highest</th>
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## Precipitation Totals (Inches)

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<tr>
<td>D</td>
<td>0.47</td>
<td>0.75</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>8.36</strong></td>
<td><strong>15.11</strong></td>
</tr>
</tbody>
</table>

APPENDIX B

The Tuba City Letter Books (1902-1917)

The Tuba City Letter Books are supposed to contain copies of all correspondence emanating from the Western Navajo School (Agency) in Tuba (now Tuba City), Arizona. The books are stored in the Vital Statistics Section, Bureau of Indian Affairs' offices in Window Rock, Arizona. They are available at that location for the period of time from March 8, 1902 through March 6, 1917. The letters for Tuba City are stored in fourteen bound volumes, each containing approximately 500 pages.

Only those letters pertaining to the purpose of this paper are cited below. Due to the deteriorated condition of the paper, the fading of the ink and considerable water damage to some pages, not all of the pertinent letters may be cited; but, those that are not, are for all intents and purposes nonexistent. Letters which may have considerable importance, as indicators of the early settlement of Kayenta or which point out discrepancies in facts presented in other sources are either partially or completely reproduced in Appendix C.

The identification number used below is the same as is used for the books in Window Rock, plus the number of the page on which the letter is found, for example: TC-63/101 would mean, Tuba City - Book 63 / page 101.

The letters are listed in chronological order, although they were not always placed in that order when the books were bound.
<table>
<thead>
<tr>
<th>I.D. Number</th>
<th>Date</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>*TC-73/12</td>
<td>June 28, 1910</td>
<td>To: Wetherill &amp; Colville From: C.R. Jefferies, Sup't. Re: Need for license</td>
</tr>
<tr>
<td>*TC-73/62</td>
<td>July 18, 1910</td>
<td>To: Wetherill &amp; Colville Oljato, Utah From: C.R. Jefferies, Sup't. Re: License</td>
</tr>
<tr>
<td>*TC-73/63-4</td>
<td>July 18, 1910</td>
<td>To: Commissioner of Indian Affairs Washington, D.C. From: C.R. Jefferies, Sup't. Re: Wetherill &amp; Colville</td>
</tr>
<tr>
<td>*TC-73/120-1</td>
<td>August 15, 1910</td>
<td>To: Commissioner of Indian Affairs Washington, D.C. From: C.R. Jefferies, Sup't. Re: Wetherill &amp; Colville</td>
</tr>
<tr>
<td>*TC-73/206</td>
<td>September 14, 1910</td>
<td>To: Wetherill &amp; Colville Oljato, Utah From: C.R. Jefferies, Sup't. Re: License for Oljato store; bond needed for proposed store at Kayenta</td>
</tr>
<tr>
<td>TC-73/327</td>
<td>November 2, 1910</td>
<td>To: Wetherill &amp; Colville Oljato, Utah From: C.R. Jefferies, Sup't. Re: Bond still not received</td>
</tr>
</tbody>
</table>

*Partially or completely reproduced in Appendix C.*
<table>
<thead>
<tr>
<th>I.D. Number</th>
<th>Date</th>
<th>Reference</th>
</tr>
</thead>
</table>
| TC-73/328-31 | November 2, 1910 | To: Commissioner of Indian Affairs Washington, D.C.  
| | | From: C.R. Jefferies  
| | | Re: Expansion of Tuba School and need for new schools (Marsh Pass) |
| TC-73/373 | November 19, 1910 | To: Wetherill & Colville Ojato, Utah  
| | | From: C.R. Jefferies, Sup't.  
| | | Re: Approval for license for Sage Chin Lee, Kayenta District |
| TC-73/433 | December 9, 1910 | To: Wetherill & Colville Ojato, Utah  
| | | From: C.R. Jefferies, Sup't.  
| | | Re: Post office change |
| TC-73/434 | December 9, 1910 | To: Wetherill & Colville Ojato, Utah  
| | | From: C.R. Jefferies, Sup't.  
| | | Re: The need for an application if they want a permit to sell firearms |
| TC-73/431 | December 10, 1910 | To: Wetherill & Colville Ojato, Utah  
| | | From: C.R. Jefferies, Sup't.  
| | | Re: A quarterly statement for all Indian labor used is required |
| TC-73/462 | December 26, 1910 | To: Commissioner of Indian Affairs Washington, D.C.  
| | | From: C.R. Jefferies, Sup't.  
<p>| | | Re: Trading post at Kayenta, need for post office there |</p>
<table>
<thead>
<tr>
<th>I.D. Number</th>
<th>Date</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-74/124-8</td>
<td>March 9, 1911</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jefferies, Sup't.</td>
</tr>
<tr>
<td>TC-74/289</td>
<td>May 11, 1911</td>
<td>To: Wetherill &amp; Colville Oljato, Utah</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Not applicable</td>
</tr>
<tr>
<td>TC-74/384</td>
<td>July 7, 1911</td>
<td>To: Wetherill &amp; Colville Oljato, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Not applicable (Note change from Utah to Arizona)</td>
</tr>
<tr>
<td>TC-74/454</td>
<td>August 5, 1911</td>
<td>To: Wetherill &amp; Colville Oljato, Utah</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Not applicable</td>
</tr>
<tr>
<td>TC-75/54-71</td>
<td>September 1, 1911</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: 1911 Annual Report</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Need many small cheap boarding schools rather than just a few good ones.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Stated: &quot;The Office now has under consideration the building of a school of this character at Marsh Pass&quot;.</td>
</tr>
<tr>
<td>TC-75/168</td>
<td>October 25, 1911</td>
<td>To: All Employers of Indian Labor</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Quarterly reports cc: Wetherill &amp;</td>
</tr>
<tr>
<td>I.D. Number</td>
<td>Date</td>
<td>Reference</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TC-75/241</td>
<td>November 17, 1911</td>
<td>To: Wetherill &amp; Colville Kayenta, Arizona (Note: use of Kayenta not Oljato)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Purchase of apples</td>
</tr>
<tr>
<td>TC-75/250</td>
<td>November 21, 1911</td>
<td>To: John Wetherill, Fahute Canyon Western Navajo Reservation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Purchase of cattle</td>
</tr>
<tr>
<td>TC-75/291</td>
<td>November 29, 1911</td>
<td>To: Wetherill &amp; Colville Kayenta, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: To process renewal of trader's license a $10,000.00 bond is needed</td>
</tr>
<tr>
<td>TC-75/326</td>
<td>December 11, 1911</td>
<td>To: Wetherill &amp; Colville Kayenta, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Approval of license renewal</td>
</tr>
<tr>
<td>TC-75/350</td>
<td>December 22, 1911</td>
<td>To: Wetherill &amp; Colville Kayenta, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Received and will forward their request to have mail sent from Tuba to Shiprock routed via Kayenta</td>
</tr>
<tr>
<td>*TC-75/380-6</td>
<td>January 1, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Location of school</td>
</tr>
<tr>
<td>I.D. Number</td>
<td>Date</td>
<td>Reference</td>
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<td>------------</td>
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<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TC-76/185</td>
<td>March 1, 1912</td>
<td>To: Peter Paquette, Sup't; Navajo School; Ft. Defiance, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jeffries, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Request cost quotation for lumber and other materials needed for Marsh Pass school</td>
</tr>
<tr>
<td>TC-76/187</td>
<td>April 1, 1912</td>
<td>To: William T. Shelton, Sup't. San Juan Indian School, Shiprock, New Mexico</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jeffries, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Request cost quotation for lumber and other materials needed for Marsh Pass School</td>
</tr>
<tr>
<td>TC-76/196</td>
<td>April 5, 1912</td>
<td>To: Peter Paquette, Sup't Navajo School Ft. Defiance, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jeffries, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: To request bids from firms in their area for the mill work to be done in connection with the Marsh Pass School</td>
</tr>
<tr>
<td>TC-76/198</td>
<td>April 5, 1912</td>
<td>To: William T. Shelton, Sup't. San Juan Indian School, Shiprock, New Mexico</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R.Jeffries, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: To request bids from firms in their area for the mill work to be done in connection with the Marsh Pass School</td>
</tr>
<tr>
<td>I.D. Number</td>
<td>Date</td>
<td>Reference</td>
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<td>-------------</td>
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<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TC-76/296</td>
<td>April 25, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Request appointment of Mrs. Lula Wetherill as field matron for the Marsh Pass district</td>
</tr>
<tr>
<td>TC-76/389-92</td>
<td>May 11, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Final estimates and plans for the Marsh Pass School amounts to $8046.87 ($446.87 more than the amount allotted). Should cost less as estimates are high. Plan #2 to be used, modified to include baths and closets</td>
</tr>
<tr>
<td>TC-76/411</td>
<td>May 16, 1912</td>
<td>To: Peter Paquette, Sup't. Navajo School Ft. Defiance, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Plans for new Marsh Pass School should be confirmed soon, can the purchase of lumber be completed by June, 1912, so that it can be paid with 1912 funds?</td>
</tr>
<tr>
<td>I.D. Number</td>
<td>Date</td>
<td>Reference</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>TC-76-438</td>
<td>May 22, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.C. Early, Special Indian Agent in Charge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Transport of supplies for Marsh Pass School, suggested Flagstaff via Tuba to facilitate checking</td>
</tr>
<tr>
<td>TC-76/436</td>
<td>May 23, 1912</td>
<td>To: Gallup Lumber Co. Gallup</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Bids for lumber for Marsh Pass School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>cc: Edward Hart Co., Gallup</td>
</tr>
<tr>
<td>TC-76/464</td>
<td>May 27, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.C. Early, Special Indian Agent in Charge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Refers to letter dated May 22, 1912; also that completion of bridge over the San Juan, near Shiprock, in the early part of the next fiscal year, will make travel and transport easier.</td>
</tr>
<tr>
<td>TC-76/468</td>
<td>May 29, 1912</td>
<td>To: Mrs. John Wetherill Kayenta, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.R. Jefferies, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Appointment as field matron denied</td>
</tr>
<tr>
<td>T.D. Number</td>
<td>Date</td>
<td>Reference</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------</td>
<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>*TC-77/347</td>
<td>September 13, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.C. Early, Special Indian Agent in Charge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Apportionment for day school, still recommend boarding school</td>
</tr>
<tr>
<td>TC-77/439</td>
<td>October 4, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: C.C. Early, Special Indian Agent in Charge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Receipt of Commissioner's letter of Sept. 13, 1912 advising start of day school, requested plans and specifications from office-ready to start as soon as carpenter and materials available</td>
</tr>
<tr>
<td>TC-78/9</td>
<td>December 10, 1912</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: William T. Sullivan, Sup't</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Requesting information on plan for Marsh Pass School to start construction spring 1913</td>
</tr>
<tr>
<td>TC-78/51</td>
<td>January 31, 1913</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
</tbody>
</table>
TC-78/116  April 29, 1913  To: Commissioner of Indian Affairs
                                Washington, D.C.
                                From: William T. Sullivan, Sup't
                                Re: Request Commissioner tell Paquette (Ft. Wingate) to begin
deliver of lumber to Kayenta

TC-78/120  May 10, 1913  To: Commissioner of Indian Affairs
                                Washington, D.C.
                                From: William T. Sullivan, Sup't
                                Re: Marsh Pass School under construction, suggest following
staff:
                                Principal @$1000/yr. (Ira E. Bell)
                                Marton @ 600/yr.
                                Cook/Laundress 600/yr.
                                Principal should begin on July 1, 1913
to receive and distribute supplies (before opening of school)

TC-78/129-30  May 19, 1913  To: Commissioner of Indian Affairs
                                Washington, D.C.
                                From: William T. Sullivan, Sup't
                                Re: Forwarding request of Presbyterian
<table>
<thead>
<tr>
<th>I.D. Number</th>
<th>Date</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-78/175</td>
<td>August 4, 1913</td>
<td>Mission to locate in Kayenta, one-half mile from the Marsh Pass School buildings</td>
</tr>
<tr>
<td>TC-78/207</td>
<td>September 29, 1913</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: William T. Sullivan Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Request permission to purchase supplies locally for completion of Marsh Pass School</td>
</tr>
<tr>
<td>TC-79/384</td>
<td>November 6, 1913</td>
<td>To: Peter Paquette, Sup't Navajo School, Ft. Defiance, Arizona</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: William T. Sullivan, Sup't.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Marsh Pass School (still) under construction</td>
</tr>
<tr>
<td>TC-79/422</td>
<td>December 29, 1913</td>
<td>To: Mr. Steward (no address)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: William T. Sullivan, Sup't.</td>
</tr>
<tr>
<td>I.D.,Number</td>
<td>Date</td>
<td>Reference</td>
</tr>
<tr>
<td>------------</td>
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<td>---------------------------------------------------------------------------</td>
</tr>
<tr>
<td>TC-80/49</td>
<td>August 18, 1914</td>
<td>To: David Robertson, Farmer Marsh Pass School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: Walter Runke, Supt.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Wagon for school</td>
</tr>
<tr>
<td>TC-78/417-8</td>
<td>August 20, 1914</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: Walter Runke, Sup't</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Report of coal mine within 10 miles of Marsh Pass School, coal for heating could be supplied for $3.00 per ton. School to begin in the Fall</td>
</tr>
<tr>
<td>TC-78/464</td>
<td>September 14, 1914</td>
<td>To: Commissioner of Indian Affairs Washington, D.C.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: Walter Runke, Sup't</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Hay for team at Marsh Pass School</td>
</tr>
<tr>
<td>TC-80/350</td>
<td>January 11, 1916</td>
<td>To: Mr. Jesse C. Jones, Principal Marsh Pass Boarding School</td>
</tr>
<tr>
<td></td>
<td></td>
<td>From: Walter Runke, Sup't</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Re: Hiring a combination Cook-laundress (couple-OK) for Marsh Pass School</td>
</tr>
</tbody>
</table>
APPENDIX C

Reproduction of Some Letters Written
By Various Tuba City Agency
Superintendents Concerning the
Development and Early Descriptions
of the Area Now Known as
Kayenta, Arizona.

The following pages are partial or complete reproductions of some of the letters listed in Appendix A. These letters were felt to be of special significance as they either relate to the chronological development of the area or are indicative of the way in which the area was perceived as a place for settlement. The identification number (see Appendix A) appears in the upper left hand corner before each letter.

As it was necessary to copy the letters by hand in Window Rock, and then have them retyped, there is a possibility of minor errors occurring in their reproduction. In general, however, every attempt has been made to present the letters as they do appear in the Letter Books, including grammatical, spelling and punctuation errors. These letters are also arranged in chronological sequence, even though they may not have been placed in that order in the Letter Books.
Messrs. Wetherill & Colville
Oljato, Utah

Gentlemen:

I sent you under date of May 29th, last, a copy of a letter received by this office from the Hon. Commissioner of Indian Affairs, calling attention to the fact that you had not filed an application for license to trade with the Indians at Oljato, Utah, for which purpose blanks were sent to you on April 2, 1910 and you are requested, in event you had not already attended to the matter, to complete the preparation of the application and to forward the same at the earliest practicable date. No reply has been received to this letter as yet. Please let me hear from you at your earliest convenience.

Sincerely,
C.R. Jefferies (original signed)
Superintendent

CRJ (J)
number of application blanks so that you may complete
the preparation of the papers required by the department
in connection with granting licenses to trade with
Indians.

Very respectfully,
C.R. Jefferies
(original signed)
Superintendent

CRJ - J

TC-73/63-4
Western Navajo School
Education -
Tuba, Arizona
Industries
15964 - 1910
24025 - 1910
L W A

July 18, 1910

In re Wetherill &
Colville, Indian
traders

The Honorable,
The Commissioner of Indian Affairs
Washington, D.C.

Sir:

In reply to Office Letter of May 23, last, reference
above, I have the honor to inclose herewith a letter
from Messrs. Wetherill & Colville, of O ljato, Utah, in
connection with the matter of their application to trade
with the Indians under this agency, at Kayenta, Utah. I
wrote these gentlemen three times about this matter and
it was not until the 15th instant that a reply was
received.

From the inclosed letter, it appears that Wetherill
& Colville are not as yet engaged in business at Kayenta,
and that they are awaiting the receipt of the necessary
blanks before completing and forwarding their appli-
cation for license. I note, from the correspondence in
the files of this office, that my predecessor, Supt.
Janus, was able to furnish these gentlemen with but one
blank application form, and that under date of March 17, 1910, he asked the Office to send additional blanks direct to them. I have made requisition for a supply of these forms and as soon as they are received I will provide Messrs. Wetherill & Colville with a sufficient number, so that they may complete the application.

I have not had the opportunity as yet to visit that part of the reservation (the San Juan Paiute and Kiabab addition) in which Messrs. Wetherill and Colville are located and, so, cannot say from personal observation just what conditions obtain; but, from what I can gather, it seems that these people have been engaged in trade with the Indians at Oljato for sometime past, without a license. They advance opinion that a license is not required of them, as their establishment is located on a placer mining claim which they took up some four years ago, before that section was made Indian Reservation, and on which, so they state, they have kept up the required assessment work to date. The license for which they intend to apply is not to trade at Oljato, but at Kayenta, 25 miles south of the former point. They propose to operate two stores—one at Oljato and the other at Kayenta. Will the Office please advise me whether or not it is necessary for them to have a license to conduct their trading business at Oljato?

I have been trying to get up into the Oljato county to investigate this and other matters and had arrangements all made for such a trip a couple of weeks ago, but was prevented from going by the arrival at Tuba of a party of official visitors. It is impossible for me to get away from the agency at the present time, but I propose to visit that section at the earliest possible date.

Very Respectfully,
C.R. Jefferies Supt.
(original signed)

CRJ - J
Sir:

Referring again to Office Letter of May 23, 1910, reference above, I have the honor to submit herewith the applications of Mr. John Wetherill and Mr. C.A. Colville, both of Oljato, Utah, for license to trade with the Indians under this agency, under the firm name of Wetherill & Colville, at Sage Chin Lee, in the Kayenta district, Arizona. These gentlemen have applied with the American Surety Co. for the necessary bond and have requested the company to forward it direct to the Office for approval.

I have just recently returned from a visit to Oljato, Utah, and to the Kayenta district where Messrs. Wetherill & Colville propose to conduct their new Trading business. The latter place is about 25 miles south of Oljato and 85 miles north of Tuba. Other than the Wetherill & Colville store at Oljato, there is no trading post nearer the new site than that of Messrs. Babbitt and Newbegin's at Red Lake, 60 miles distant. Messrs. Wetherill & Colville inform me that, while their plans are not as yet entirely formulated, they have about decided to abandon their store at Oljato as soon as the Kayenta establishment is opened. As stated in a former letter, the Oljato business is being conducted without a license on a placer mining claim which was taken up by Mr. Wetherill some four years ago before that section was made Indian reservation, and which is being held by the performance of the required assessment work thereon.

Although I have but slight personal acquaintance with Messrs. Wetherill and Colville I should judge from what I learn of their reputations, that they may both be considered proper persons to engage in trade with the Indians
and I recommend, therefore, that the license for which they apply be granted.

Very respectfully,
C.R. Jefferies (original signed)
Superintendent

TC-73/206

Tuba, Arizona
September 14, 1910

Messrs. Wetherill & Colville
Oljato, Utah

Gentlemen:

Referring again to the matter of whether or not it is necessary for you to have a license to conduct a trading business at Oljato, I am just in receipt of a letter from the Indian Office from which I quote you as follows:

"Answering your letters of July 18, and August 15, 1910, asking whether it would be necessary for Messrs. Wetherill and Colville to take out a traders license covering a store established by them on a placer mining claim at Oljato, Utah, you are informed that if these gentlemen hold a mining claim approved by the General Land Office they need not take out a license covering their store at that place."

You will see from the foregoing that the Indian Office does not deem it necessary for you to procure a license, provided your mining claim is held under the approval of the General Land Office.

With reference to your application to conduct a store at Kayenta, the Indian Office writes that this matter will be given proper consideration upon receipt of your bond which you stated would be filed by the American Surety Company.

Very respectfully,
C.R. Jefferies (original signed)
Superintendent

CRJ (M)
Although it is estimated that there are at least 1500 Navajo children of school age on this reservation, the present school facilities will accommodate only about 80 of this number. Except the Moen-Copi Day School, which is maintained exclusively for the Hopi, the only educational institution of any kind on the reservation is here at Tuba; nor are public schools available for these Indians, as the nearest settlement, the town of Flagstaff is ninety miles distant. This lack of means of educating these Indians is a matter that should receive immediate consideration by the Government. Because of the nomadic habits of the Navajo; day schools would not be a success here and, until there is a material change in the existing conditions, the problem of educating the Navajo children can be solved only by the establishment of boarding schools. It has been proposed to increase the capacity of the Tuba school to 300 and to endeavor to find a suitable location for another plant somewhere in the northern part of the reservation. In addition to these projects an effort should be made to find, if possible, other locations where there is sufficient water to permit the establishment of schools of smaller capacity.

There are no mission or contract schools on the reservation.
General Conditions

The Honorable
The Commissioner of Indian Affairs,
Washington, D.C.

Sir:

In reply to Office Letter of the 1st ultimo, reference above, I have the honor to report as follows:

Under the date of September 14, last, I submitted in connection with a report made by Inspector Joe H. Norris, recommendations to the effect that the school here at Tuba be enlarged to a capacity of from 250 to 300 pupils. The attention of the Office is invited to this report, as it bears closely on the remarks made by Supervisor Hall as to the conditions obtaining at Tuba.

A school and assembly building should undoubtedly be erected here, but I do not think it should be planned to accommodate but 120 pupils, but should be of sufficient capacity to meet the requirements of an enlarged plant. When the possibilities of the reservation shall have been fully investigated I believe it will be found that there are but very few places where by reason of adequate water supply, it is feasible to establish and maintain additional boarding schools, and the enlargement of the Tuba plant will then necessarily follow.

Concisely stated, the situation is this: The scholastic population of the reservation is estimated at 1500 and, of this number, only 100 are enjoying school advantages, as the only school on the reservation for Navajos is the one here at Tuba; day schools are not practicable for the reason that these Indians do not live in communities but go from place to place with their flocks of sheep and goats where grass and water can be found; public schools are not available, as there are no white settlements nearer than Flagstaff, ninety miles from Tuba. Apparently the only way, then, to provide educational facilities for the Navajo children is by means
of boarding schools. Just how many schools it is possible to establish is unknown, as the reservation has never been thoroughly explored. Prof. Herbert E. Gregory of the Geological Survey who visited this section last summer, expresses the opinion that a boarding school can be maintained at or near Marsh Pass, which is about 65 miles northeast of Tuba. There is a permanent stream of water at this place—Laguna Creek—which, I believe, is of sufficient volume to meet the demands of a school plant.

... Remainder of letter is concerned only with Tuba City. ...

Very Respectfully
C.R. Jeffries
(original signed)
Superintendent

CRJ M

TC-73/373

Western Navajo Indian School
Tuba, Arizona

November 19, 1910

Mess. Wetherill & Colville
Oljato, Utah

Gentlemen:
You are advised that the Department, under date of Sept., 29th. 1910, approved your request to run a general merchandise store for trading purposes with the Navajo Indians, at Sage Chin Lee, Kayenta District, as is evidenced by the inclosed "License" with instructions governing same.

Very respectfully,
C.R. Jeffries
(original signed)
Superintendent
Western Navajo Indian School
Tuba, Arizona
December 9, 1910

Messrs. Wetherill &
Colville
Oljato, Utah

Gentlemen:

Your letter of the 25th ultimo, acknowledging receipt
of your license to trade with the Indians at Kayenta,
is received; also, letter with reference to the post
office matter.

I am not very well informed as to the workings of the
Post Office Department and do not know whether I can help
you secure the change you desire or not. However, I will
be glad to help all I can consistently, and if there is
anything I can do let me know.

With kindest personal regards, I am

Very Respectfully,
C.R. Jefferies
(original signed)
Superintendent

CRJ - M

Western Navajo School
Tuba, Arizona
December 26, 1910

F L S

Change in post office

The Honorable,
The Commissioner of Indian Affairs,
Washington, D.C.

Sir:

In reply to office letter of the 15th instant,
reference above, I have the honor to report that Messrs.
Wetherill & Colville have just recently been licensed as
traders on this reservation and that they have engaged in business at Sage Chin Lee, in the Kayenta District, about 85 miles north of Tuba and 25 miles south of Oljato, Utah. They were formerly located at Oljato; but with their removal to Kayenta, the Oljato station was abandoned.

Kayenta is in the heart of the Indian Country. The nearest at which whites are located is Red Lake, a trading post situated about 60 miles south. The nearest post office is either at Tuba or Chin Lee, both places being about equally distant. An office at Kayenta would be used to some extent by the Indians; it would put the trading post in closer touch with this office; and its establishment would have a tendency to help in the development of the country. I do not see that it could in any way be prejudicial to the interests of the Indians.

Very Respectfully,
C.R. Jefferies
(original signed)
Superintendent

CRJ - M

TC-74/124-8

Education Schools
Western Navajo School
P C
Tuba, Arizona
March 9, 1911

School at
Marsh Pass

The Honorable,
The Commissioner of Indian Affairs
Washington, D.C.

Sir:

In reply to Office Letter of December 29, 1910, reference above, I have the honor to submit the following report:

Location and Physical Characteristics
Marsh Pass is located about 65 miles northeast of Tuba, and is the natural passageway between and connecting the northern and southern parts of this reservation.
The Pass runs northeast and southwest. The approach from the south is through a very pretty valley that gradually narrows until it forms the Pass. The Black Mesa forms the south side of the valley for a distance of 40 miles or more, and the Pass itself is across the extreme northern point of the mesa. On the north side of the valley are red sandstone hills which, nearing the Pass, close in and become rougher and higher. This valley is poorly watered the nearest springs being at Va-sai-bi-to about 25 miles from the Pass. Laguna (or To-wan-choche) Creek flows into the Pass from the northwest just beyond the divide almost at right angles, and then turn northeast. North of Marsh Pass the country broadens out very beautifully and is generally level, although broken in places by washes and small bluffs. This wide expanse of land is covered with grass and other low growing vegetation. The soil is apparently fertile and has comparatively little sand. The altitude at the highest point in the pass is about 6500 feet, but there is a drop of 500 feet or more within a short distance. It is probably a little cooler there than at Tuba, and the rainfall is said to be slightly greater.

Water Resources
Laguna Creek is a perennial stream but the flow increases and decreases according to the season. I am unable to give the average amount of flow, but this information can be obtained from Prof. Herbert E. Gregory or the Geological Survey, who advised me last summer that he had those figures. The Creek flows into the Pass out of a very deep and rocky canyon and from the point where it makes the turn it has cut deep into the soft soil, the wash varying in depth all the way from a few feet to 50 feet or more. To the best of my information, the water always carries a large percentage of sediment which is for the most part red sand. The water settles rapidly, however, and is of good quality.

I was able to find but seven springs in the Marsh Pass section, four of which were in the bottom of Laguna Creek Wash. The first of these (really a group of springs) is about three miles beyond the Pass. These springs bubble up good and strong, but they are probably 40 feet below the top of the ground. There is a falls just above them where there seems to be a good chance to develop water power.

Farther on down, about four miles, and just below a
second and smaller fall, there is another group of springs in the bed of the creek. The wash is very deep here probably 50 feet.

A short distance below this point is a third spring in the bottom of the creek. This is about covered by silt at present, but it is said that three years ago it gave sufficient water to provide for 900 calvary horses.

Still farther on down the creek is a fourth group of springs in the bed of the Wash. They give a good supply of water, but the wash is about 50 feet deep at this point.

About ten miles beyond the Pass, and south and east of Laguna Creek are the To-da-nos-ja Springs. These springs come along the top of the low bluff. There are at least a half dozen places here where the water breaks out and there is every indication that a much larger supply can easily be developed. Whether or not a supply adequate for a school plant could be obtained can only be ascertained by development work. The water here is very good.

The other two of the seven springs referred to are to the north and west of To-da-nos-ja. They are small and not suitable for school purposes.

The formation of the Marsh Pass country would indicate that water could be obtained by drilling deep wells, and I believe that, before a school site is decided on, a well drilling outfit should do some work there.

The water question seems to resolve itself into these points:

1. **Laguna Creek.** To use this water a dam strong enough to withstand floods will have to be constructed across the wash. In one place, a short distance below the Pass, the wash is but a few feet deep and it looks as if it might be feasible to put in a low dam at this point and run the water out. As the water carries a large percentage of sediment, it will have to be settled before it could be used either for domestic or irrigation purposes. The dam and the settling reservoir would have to be constructed as to provide means of cleaning them of the silt that would collect in a very short time.

2. **Springs in the Bed of Laguna Creek.** The most favorable of them is probably the first one mentioned in this report. The springs comprising this group give a good supply of water, probably sufficient for domestic purposes, but not enough for any extensive irrigation
system. The springs would have to be developed, run together if possible, and inclosed by a strongly constructed casing of some kind. By utilizing the water power available at this point, the spring waters could be pumped out on top of the ground. The water power could also be used in operating machinery at the school.

3. To-da-nos-ja Springs. The present flow of these springs is insufficient for school purposes, but it can be materially augmented by development work, and possibly an adequate supply obtained.

4. Drilling Wells. The possibility of obtaining water in this way is, of course, entirely problematical, but the indications are favorable, and the success of such an undertaking would have such far reaching results, that I think it should be considered.

Building Material
Stone is the most available material for buildings. In the Black Mesa, on one side of the Pass, there is a yellow sandstone that appears to be of better quality than the red sandstone in the hill just opposite. Both kinds are conveniently located.

There is no timber in that section suitable for lumber. The nearest place at which lumber can be obtained is in the government saw mill at Ft. Defiance.

There is some lime stone (cap rock) from which lime can be made. Sand is plentiful.

Fuel
There is an abundance of cedar wood on and around Black Mesa. There are also several coal croppings in the Mesa, but the extent and quality are unknown.

Roads
Marsh Pass country can be reached by way of Flagstaff, Tuba and Red Lake or via Gallup, Ft. Defiance and Chin Lee. The distance by either route is practically the same, 155 miles. Both roads are bad, although from what I can learn, the Gallup-Chin Lee is a little the better at present. I have never been over the latter road, but I am given the following information by one of the licensed traders on the reservation located in the neighborhood of Marsh Pass and who freights his supplies from Gallup:

From Gallup to Ft. Defiance, 32 miles, the road is bad; from Ft. Defiance to Chin Lee, 45 miles, the road is good; from Chin Lee to Marsh Pass, 78 miles, the road is fair. As to the other route, the first 90 miles of road,
Flagstaff to Tuba, are good; the next 26 miles, Tuba to Red Lake, are through heavy sand and the sand is very bad; from Red Lake to Marsh Pass the road is good until it begins to ascend the Pass where there is a heavy grade up over the divide. An expenditure of probably $600 would probably put this stretch of road (through the Pass) in shape to permit hauling of loads over it. Water facilities along both routes are about equal.

Very respectfully
C.R. Jefferies
(original signed)
Superintendent

CRJ (M)

TC-75/380-6

Education -
    Schools
102302 - 1910
79246 - 1911
H J S

Location of school
    near Marsh Pass, Ariz.

The Honorable,
    The Commissioner of Indian Affairs
    Washington, D.C.

Sir:

In reply to Office Letter dated October 10, 1911, reference above, I have the honor to report as follows:

I have visited Marsh Pass and vicinity and I agree, in the main, with Supervisor Peterson's recommendations looking to the establishment of a school in that section.

The proposed school plant should be erected at the springs which supply water to the trading post of Messrs. Wetherill and Colville. The Indians name for these springs is To-da-nos-ja and the post office (at the trading post) is Kayenta, Arizona. I would recommend that the school be located north and west of the trader's store and residence,
as far from these buildings as the rising ground to the north and west will permit the delivery to the school buildings, by gravity, of the water from the spring to the south. The ground here slopes from the south and west, and the springs come out of the sandstone near the top of a comparatively low bluff-like formation (under and north of which the trading post is located) some twenty feet higher than the trader's buildings. Before commencing construction work it will be necessary to take levels with a survey instrument in order to determine where the buildings are to be located. I believe, however, that it will be possible to so locate them that the Southeast corner of the school grounds will be a couple of hundred feet at least from the northwest corner of the trader's yard. The school buildings should face east.

Supervisor Peterson recommends that the proposed school should be built on the "cottage home" plan, and the Office suggests that five buildings constitute the plant—one dormitory each for boys and girls, a school house, quarters for one teacher, and a small warehouse. I am not acquainted with the "cottage home" type of school and it may be that under this plan, the five buildings named will afford ample accommodations. I would like to call attention, however, to the fact that there seems to be no provision made for either a dining room or kitchen, nor for a laundry; neither is allowance made for physician's quarters and a dispensary. With reference to this last item, I believe that a physician should be stationed at the new school. At the present time the nearest place at which those living at Kayenta can secure medical attention is Tuba, eighty miles distant, and I do not believe that employees can be induced to remain at a school that is so remote from a physician. Under separate cover I am submitting, for the consideration of the Office, plans for two styles of school plants, plan No. 1 closely follows the suggestions of the Office, while plan No. 2 contemplates a larger plant. Bills of material and estimates of cost to accompany the plans are also submitted.

The building occupied by the traders as a residence is a stockade structure, and Supervisor Peterson has recommended that the school buildings be of like construction. This is the cheapest construction possible and, if it is expected that the plant will be used but a short time only, it may prove entirely satisfactory. I gather from Supervisor Peterson's report that he has
submitted to the Office sample of limestone that is to be found about a mile from the school site. There is a sufficient quantity of this stone exposed to construct the plant and as stone buildings would be more substantial, would require less work to be done on them to keep them in repair, and would be much more satisfactory in every way. I would suggest that this material be used instead of putting up stockade buildings. The stone need not be dressed and faced; it can be laid up in adobe mortar and, afterwards, if so desired, pointed up with cement. This type of construction will produce a building that will stand indefinitely. The trader's house has a dirt-and-pole roof and dirt floors. Even if the Office desires to put up stockade buildings I would strongly urge that a different type of roof be constructed. The cheapest roof, and one that would at the same time be satisfactory, would be a roof of corrugated sheet iron, and I would recommend that this style of roof be used on either stockade or stone buildings. Dirt floors in the school building would be impracticable and ordinary wood floors should be laid.

It will be noted that the totals of the estimates submitted with both plans and on both styles of construction come within the limit of $7,600. The prices given of the different items (except articles to be furnished by Indians) are for the supplies delivered at the railroad point of the school, as it is presumed that the cost of freighting the material from the railroad to the school site will be paid from the regular transportation fund and not from the appropriation out of which payment for the construction work will be made. Several of the articles required, such as nails, pipe, building paper, sheeting, etc., are listed in the Annual Estimate of Goods and Supplies and these can be purchased by the Office under existing contracts much cheaper than the same articles can be purchased in this part of the country. I believe, too, that the corrugated iron roofing can be purchased at a better price through one of the Indian Warehouses than it can be gotten for in local markets.

Freight for the new school should be shipped to Farmington, New Mexico, a station on the Farmington Branch of the D. & R. C. Ry. From Farmington, supplies will have to be hauled to the school by wagons, the road passing through Fruitland (14 miles), Shiprock (21 miles) and Teasnaspas (34 miles) to Kayenta (75 miles), a
total distance of 144 miles from the railroad to the school site. Indian teams can be secured to haul freight over this route for $1.75 per cwt.

I have been informed that the Government maintains saw mills at the San Juan and Ft. Defiance agencies. If the lumber required for the Kayenta school can be provided from one of these places a considerable savings will be effected. If possible, it should be gotten from Ft. Defiance, as this mill is a little nearer to Kayenta than the one at Shiprock and the road is a little better. The distance between Kayenta and the Ft. Defiance mill is 105 miles and the cost of freighting between these two points will be $1.45 per cwt., or, figuring on a basis of 2 1/2 pounds to each foot of lumber, the cost of transporting lumber will be $36.25 per thousand feet. This freighting can be done by Indians.

For estimates submitted contemplate the employment of Indian labor almost exclusively in the construction work on the proposed school building. If white labor is used the estimates will have to be materially increased. I believe, however, that the necessary carpenter and stonemason labor can be secured from among the Hopi Indians at Moen-Copi, Oraibi and Keams Canyon; and, if the Office will furnish a competent white man to supervise the work, a man who has had experience in working Indians, this office will undertake to erect the plant with practically all Indian labor. As a suitable man for this position, I would recommend Mr. John Doll, a general mechanic at Tuba. Mr. Doll has been here for about four years and has done considerable construction work with Indian help. He drew the plans and prepared the estimates which are submitted and he states that he is willing to undertake the work. Can he not be detailed for this work, and can he not be paid an increased compensation during the time he is so engaged? At present, Mr. Doll receives $1,000 per annum; but, if he is assigned to work at Kayenta his living expenses will be considerably more than if he remained at Tuba, and it would seem that it would be only fair to give him a better rate of pay.

Unless some unforeseen difficulty arises it should be possible to complete the construction of the proposed school plant within ninety days from the time the work begins. On account of the severe cold weather that can be expected in the Marsh Pass country during the months of December, January and February, I would suggest that
the work not be commenced before the first part of March. In as much as I do not have copies of the two drawings submitted, it is requested that the one approved by the Office be returned to me; if neither one is accepted please furnish me a plan to work by. Also, please advise what, if any, of the material required will be purchased by this office.

Very respectfully
C.R. Jefferies
(original signed)
Superintendent

CRJ

TC-77/347-3

September 13, 1912

The Commissioner of Indian Affairs
Washington, D.C.

Sir:

I observe from the 1913 Apportionment, from the fund of "Indian School Buildings" that the sum of $7,750.00 was allowed for the construction of a day school at Marsh Pass and for general incidental expenses not foreseen.

I have gone over the matter with Supt. Jefferies...

(Remainder of letter states that they recommended, and still do, a small boarding school at that site.)

Respectfully,
C.C. Early (original signed)
Special Indian Agent
in Charge