# THE 1893 AND 1904 SCHOOLHOUSES AT LAKE VALLEY MINING DISTRICT, NEW MEXICO

BY

SCOTT KEVIN HAYS-STROM, B.G.S.

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"The 1893 and 1904 Schoolhouses at Lake Valley Mining District, New Mexico" a thesis prepared by Scott Kevin Hays-Strom in partial fulfillment of the requirements for the degree, Master of Arts, has been approved and accepted by the following:

_____

Dean of Graduate College

_____

Rani Alexander

Chair of Examining Committee

_____

Date

Committee in charge:

Dr. Rani Alexander, Chair

Dr. Kelly Jenks

Dr. Sylvia Marinas

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# Curriculum Vitae

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|---|---|
| August 15, 1962 | Born in Berkeley, California |
| 1980 | Graduated from Raton High School Raton, New Mexico |
| 1983—1990 | United States Air Force |
| 1991—2013 | Staff, Department of Economics |

University of Nebraska at Omaha

| | |
|---|---|
| 2013—2016 | Graduate Student, Department of |

Anthropology, New Mexico State University

| | |
|---|---|
| 20216-Present | Pathways Intern, Archaeology Lincoln |

National Forest

Professional and Honorary Societies

Society of Historical Archaeology
Mountains and Plains Museum Association
Association of Academic Museums and Galleries
Alpha Sigma Lambda
Phi Alpha Theta

Papers Presented

Presented Phi Alpha Theta Student Competition Paper at Missouri Valley History Conference, Omaha, Nebraska. "*The Civil War Comes to New Mexico*." January 2011.

Graduate Research and Arts Symposium, New Mexico State University, Las Cruces, New Mexico. "*School House Rock: Lake Valley Mining District School House Archaeology*." March 18, 2015.

Society for Historical Archaeology 2016 Conference, Washington D.C. *"Predictive Use of Archaeology Models and Theories in Action."* January 7, 2016.

Field of Study: Archaeology, Cultural Resource Management

## ABSTRACT

This thesis will examine how a mining community used the arrangement of space in their schoolhouses, and school activities to educate the children of their community to become productive workers. Using written records and material cultural remains, it will be shown that the design of schoolhouses influenced the creation of a productive workforce. The preservation of historic schoolhouses in New Mexico will also be examined.

The focus of this work is the schoolhouses at Lake Valley Mining District, Sierra County, New Mexico. The former silver and manganese mining community had two surviving schoolhouses, which operated between 1893 and 1930.

Data about the school population was gathered from United States Census records. This data was used to analyze attendance at school, language, children's birth place and sex, and parents' birthplace. Analysis of the cultural remains of the schoolhouses in Lake Valley will provide an understanding of how schools created a productive workforce. Archaeological records from the New Mexico Cultural Resources Information System (NMCRIS) will be analyzed to examine the life cycle of the schoolhouse structures in Lake Valley. These records will also demonstrate the importance of the schoolhouse preservation to New Mexico.

In order to interpret the data, two archaeological models will be applied. These models are April Beisaw's Site Formation Process Model and Henry Barnard's

School Architecture Model. In addition, the arrangement of space, the curriculum, and classroom activities will be analyzed..

The importance of this research is its expansion and application of formation process models to institutional archaeology on frontier schoolhouses. It will also expand our understanding of the role of education systems in rural schoolhouses throughout New Mexico. This information will be added to the NMCRIS database as part of the preservation of historic schoolhouse in New Mexico.

## TABLE OF CONTENTS

## LIST OF FIGURES

## LIST OF TABLES

# CHAPTER 1
# INTRODUCTION

Historical Archaeologists study human cultures through the written record and cultural material left behind. One subfield of historical archaeology is the study of institutions, called institutional archaeology. An institution is “an established organization, or foundation especially one dedicated to education, public service, or culture” (American Heritage 1992:936). Institutions pervade social life. They express community goals, values, and the limits of acceptable social behavior. Institutional archaeology seeks to answer the question of how an institution controls specific aspects of individual life and behavior. Topics of study in institutional archaeology can include examining items of daily use in schools, such as schedules to see how the infrastructure operates. The daily schedule and arrangement of space can show evidence of conformity to rules so that students can be molded into a productive workforce. How schools and schoolhouses educate students can provide evidence of creating student’s roles in a community that reflect specific values, goals, and expectations to become productive members of the workforce.

My goal in this study is to examine the written records and material cultural remains of two schoolhouses, to see if the arrangement of space and school activities taught the students to become a productive workforce for their community. In addition, I will discuss the process for nominating a schoolhouse to the State and National Registers of Historic Places. There are currently 52 schoolhouses in New Mexico on these registers. The preservation of historic schoolhouses and their

artifacts can provide to institutional archaeologists information about the relationship of schools to their students and the community.

This study will focus on the schoolhouses within the Lake Valley Mining District, Sierra County, New Mexico. The history of education in the community can be seen through the material culture of the two surviving schoolhouses in this former mining community. The first schoolhouse at Lake Valley was created in 1893 and used until a larger more modern facility was erected in 1904. The decision to build the 1904 schoolhouse was based on the needs for a growing student population. Several remodeling projects took place to provide space for a more diverse education model.

Analysis of the materials I gathered provides details of the architecture of both the 1893 and 1904 schoolhouses. The design of these buildings and the arrangement of space are found in the *Lake Valley Recordation Project* (Browning 1991:G-116, G-165), which contains the Historic American Building Survey/Historic American Engineering Record (HABS/HAER) report on each structure. Many original artifacts from the schoolhouses are located in the 1904 schoolhouse in a museum curated by the Bureau of Land Management (BLM). The artifacts include desks, blackboards, maps, textbooks, and examples of classroom activities. The interpretation of these artifacts can show how the activities in the classroom reflect the goals and values of the Lake Valley community, and how those goals and values created an efficient workforce.

I use three Marxist theories covering education, economics, and citizenship to analyze whether the arrangement of space and school activities influenced the creation of a productive workforce from the students, and the imposition of roles based on sex. The three theories being applied to the data are the Marxist education theories of Louis Althusser (1971), the Marxist economic theory of Samuel Bowles and Herbert Gintis (2001), and the citizenship theory of Sara Carpenter (2011).

I also applied two models to the data. The first model is the Educational Structures Model by Henry Barnard, Commissioner of Public Schools for Rhode Island (Barnard 1850:9). *School Architecture; or Contributions to the Improvement of School-Houses in the United States* published in 1850, set standards used for planning a complete educational system dictating architecture, classroom design, seating arrangements, and curriculum into the twentieth century.

The second model to be applied is April Beisaw's Site Formation Process Model (Beisaw and Gibb 2009:55). This model is composed of six key processes that provide a guide for site sampling strategies that aid in the interpretation of a schoolhouse. These processes give a full understanding of the life cycle of a schoolhouse from construction to abandonment.

This study provides two significant contributions to advance the study of the archaeology of institutional life. Previous archaeological study of schoolhouses has been confined to the east coast and upper Midwest region. By applying Beisaw's Site Formation Process Model to Lake Valley, this study can be expanded into the Southwest. The second significant contribution is the application of the Educational

Structures Model to the historic New Mexico education system. This application can provide evidence to show if a change that occurred to help reproduce a productive workforce that supported the industry of a specific community.

The presence of a schoolhouse is the common thread running through most rural communities in New Mexico. Schoolhouses are institutional structures that also serve to focus community activities. While other buildings in rural towns disappear, a schoolhouse is often all that remains. In New Mexico, there is a lack of preservation of historical schoolhouses. The preservation of historic schoolhouses throughout the State of New Mexico allows the historic archaeologist to advance the study of the role of education in rural communities.

My thesis is arranged in the following manner. In Chapter 2 I describe each theory and model applied to my study area. Included in this chapter are the Marxist education theories of Louis Althusser (1971); the Marxist economic theory of Samuel Bowles and Herbert Gintis (2001); and the citizenship theory of Sara Carpenter (2011) and the perspective they provide on capitalist societies. Then I will explain the Educational Structures Model by Henry Barnard (Barnard 1850) and April Beisaw's Site Formation Process Model (Beisaw and Gibb 2009:55) as applied to schoolhouse archaeology. The final topic I address in this chapter is the importance of the historic preservation of schoolhouses in New Mexico.

In Chapter 3 I will provide a discussion of the historical setting. This chapter will present the history of Lake Valley Mining District and its need to establish an education system that would provide an efficient workforce for the mining industry.

In Chapter 4 I will outline my research questions, data collection methods, and limitations of my study. Chapters 5, 6, and 7 will be my discussion of the analysis of historical, structural, and material data that was found in the 1893 and 1904 schoolhouses at Lake Valley.

Chapter 8 will be a discussion of the data analyses, relating to my findings that support my research questions. This chapter also includes an additional discussion on the current state of historic preservation of schoolhouses in New Mexico. In Chapter 9 I will present my conclusions and suggestions for future research in historic preservation of schoolhouses in New Mexico.

# CHAPTER 2
# THEORETICAL BACKGROUND

Lu Ann De Cunzo defines historical archaeology as "attention to the everyday world of all peoples, approached from multiple perspectives. Historical Archaeology is at once history and anthropology; historical archaeologists seek to understand the cultural process and human experiences that produced the world we live in today" (De Cunzo 2005:1). One field of study in historical archaeology is the study of institutional life. An institution is an organization that is created to help educate, rehabilitate, recuperate, and care for segments of society that are incapable of doing so for themselves. Examples of institutions include: schools (public and boarding schools) and hospitals.

Schoolhouses are institutions designed to model behavior that reflects cultural norms through the imposition of rules and behavior modification. These rules and behavior modifications are a community's effort to nurture a student into becoming a productive member of society through a method of instruction based on role models, gender, ethnicity, and social status.

As an example, the Indian Boarding School also referred to as an Industrial School, created by Henry Pratt in the late 19$^{th}$ century was a federal education system with the primary goal of assimilating American Indians into western society.

According to Marxist Theory, in many rural communities of the late nineteenth and early twentieth centuries the schoolhouse functioned as more than a place of education. The schoolhouse is one of the few social institutions that people in

communities used on a daily basis. Schools can be the center of social, political, dramatic, and religious activities in the community (Hodgson 2006:6). They often were a reflection of, and helped shape the community (Tyack 1974; Guilford 1996; Rotman 2003).

Marxist theories are related to the Structural Functionalist perspective in anthropology. This point of view sees society as a complex system which promotes stability through the replication of social norms and patterns of a productive workforce (Hodgson 2006:7). The idea is to create a student that can function in a capitalist society that will reflect the values of their community. I examine the value of Marxist theory to look at the education, economics, and societal factors that influenced behavior, but none have been applied to the students at Lake Valley. I used this theory to evaluate how the students became a productive workforce.

*Marxist Educational Theory*

Applying Marxist Educational Theory (Althusser 1971; Bowles and Gintis 2001; Baxter 2005) to a rural schoolhouse can show the process of the creation of a productive workforce through the use of the arrangement of classrooms, the curriculum and instructional programs, and the imposition of gender roles. The Marxist Education Theories espoused by these authors explain how schools in a rural setting adapt curriculum, buildings, and instruction models to create students who understand their role in society as productive workers and good model citizens. This theory also explains how the culture of a society can be passed on through education outside of the home.

School leaders make conscious and unconscious decisions to reproduce ideological, social, and political relationships that reflect the dominant group interests. The reproduction of ideology can be accomplished through a variety of methods: the arrangement of the classroom, choice of curriculum and instructional programs, and the imposition of gender roles to bring out qualities of good citizenship.

The best method for demonstrating the role of the schoolhouse is to compare and contrast Structural Functionalism with Marxism (Table 1). Both approaches emphasize how institutions legitimize social inequality. The arrangement of space and the curriculum used in a schoolhouse is evidence of the hierarchy that is needed to support a workplace environment. Both perspectives also see education as influencing and passing on the social values and norms of the community within the student body.

The French theorist, Louis Althusser (1971:3), argued that the primary function of education was the reproduction of an efficient and obedient workforce. Schools achieve this by transmitting the ideology that capitalism is a just and reasonable concept and by training future workers to become submissive to authority. The arrangement of schoolhouses in rural settings appears to accomplish this goal. Applying Althusser's argument, it appears that activities in the classroom create a workforce that the factory or mining industry can utilize. An example of these activities that can instill discipline in a student is the use of a school bell. Bells can be

used at certain times of day to call students in from recess or to start and end the day. Another

Table 1
Difference between Structural Functionalism and Marxism

| **Structural Functionalism** | **Marxism** |
|---|---|
| Education serves the needs of industrial society, by an advanced division of labor. | Education serves capitalist society by dividing people into social classes. |
| Education serves the needs of the social system by socializing pupils to shared values, norms, and beliefs. This leads to great social solidarity. | Education serves the needs of capitalism by socializing children into the dominant ideology; this means a more obedient workforce, thus helping capitalism. |
| Education means those who have ability can move up the social classes or meritocracy. | Education helps lower class mobility and therefore increases social inequality. |
| Education explains social inequality. Those students, and in turn workers are where they are due to hard work and demonstrated ability. | Education legitimizes social class inequality by persuading working class pupils to accept their social role. |

example can be found in the selection of curriculum to help shape workers for various tasks and functions within a factory or the mining district.

When the principle industry in a town is mining, workers need to be well versed in geology and geography. There is also a need for strong mathematicians in records offices. Gender roles are encoded and enforced through the same application of school work and modeling by instructors. All these methods used by a school system in these communities create ready and obedient workforces that fit the Marxist model of capitalism that Althusser espoused in a growing culture and economy.

Bowles and Gintis' (2001:1) research on the role of the school in capitalist society supports Althusser's idea of growing culture and economy in a principle they named Close Correspondence. This principle operates in schools using structured group interaction, along with rewards for exceptional work. Bowles and Gintis (2001:1) write that this principle works the same in the workplace environment. This principle creates a hard-working, disciplined workforce for capitalist societies. Schools mirror the workplace through a hierarchical structure—teachers give the orders, and the students obey. The pupils have little control over their work, which is a fact in many jobs. Schools reward punctuality and obedience and dismiss those who show too much independence, critical awareness, and creativity. The structure of the school year varied little from year to year with the same start and end date, with weather delays or cancellations being the only allowable variation. This reflection is also cross-occupational because these principles apply to all industries.

The methods of instruction in schools and the arrangement of the lessons allow for transmission and learning of cultural knowledge suitable for the creation of an efficient workforce. By the late nineteenth-century most schools were arranged in a hierarchical manner according to ability. Usually, younger students were seated in the front and older students to the rear. Older students were also employed by the teacher to help younger ones. Subjects that made up the curriculum included penmanship, reading, writing, and arithmetic. Recitation of moral stories taught children the values of proper behavior and skills of functioning as a worker able to follow direction. Good behavior and strict discipline were also enforced, and teachers

punished those that misbehaved or did not abide by the rules (Sauceman and Mays 1999:12).

A second goal was to create good student citizens ready to contribute to the social fabric of the community. In rural mining or ranching communities in the late 1800s, the residents consisted of immigrants from countries that were not familiar with a capitalist economy or democratic republic form of government. The curriculum used in schools can create informed citizens by teaching children how to function in a capitalist economy and contribute to being a good citizen. Sara Carpenter outlines what constitutes a "good citizen" in her theoretical framework of being an inclusive, pluralistic, reflexive and active person (2011:67). The inclusive citizen brings the marginalized members of a community into participation and all work together to bring an active space to a community. The reflexive citizen is often self-critical and actively engaged in community action. The most advanced form of citizenship is the role of active citizenship, because an active citizen can integrate the other levels of citizenship into action.

Althusser (1971:6) wrote that for a capitalistic society to grow, the goal of education was to create an obedient and efficient workforce. Strict discipline and good behavior with the ability to follow the rules of the community is what schools represent.

To understand how education can be used to create an efficient workforce and productive citizen, two theoretical models need to be applied to any institution that provides education. The first model to be discussed will be the Educational Structures

Model by Henry Barnard. The model he created shows how the arrangement of space and the school day shaped an efficient workforce and productive citizen.

*Educational Structures Model*

The Educational Structures Model (Barnard 1850:79–80) was published in *School Architecture; or Contributions to the Improvement of School-Houses* by Henry Barnard, the Commissioner of Public Schools in Rhode Island. His model presents a blueprint on how a schoolhouse should be built. It also outlines the arrangement of classroom space and the educational materials needed to instruct students. This model provides the standard blueprint followed by educational systems in the United States until the mid-twentieth century. Barnard's model of schoolhouse architecture furthers the aims of a capitalistic society described by Althusser (1971:9). Althusser stressed the notion that the role of education was to create an effective workforce in a capitalistic society.

Figure 1 is a sample layout that shows the concepts behind all of Barnard's models. The instructor's platform and desk are at the top of the figure (T). The student's desks are in rows facing the platform (P). Also, there is a heating source (F) near the center of the room, and ventilation is on the sides. There is a coatroom designated for girls and boys on each side of the entry. Barnard felt it was important to build a schoolhouse and grounds to facilitate learning of all sorts, and to accommodate a proper and decorous play, with each sex having a separate space during recess periods (Barnard 1850:60).

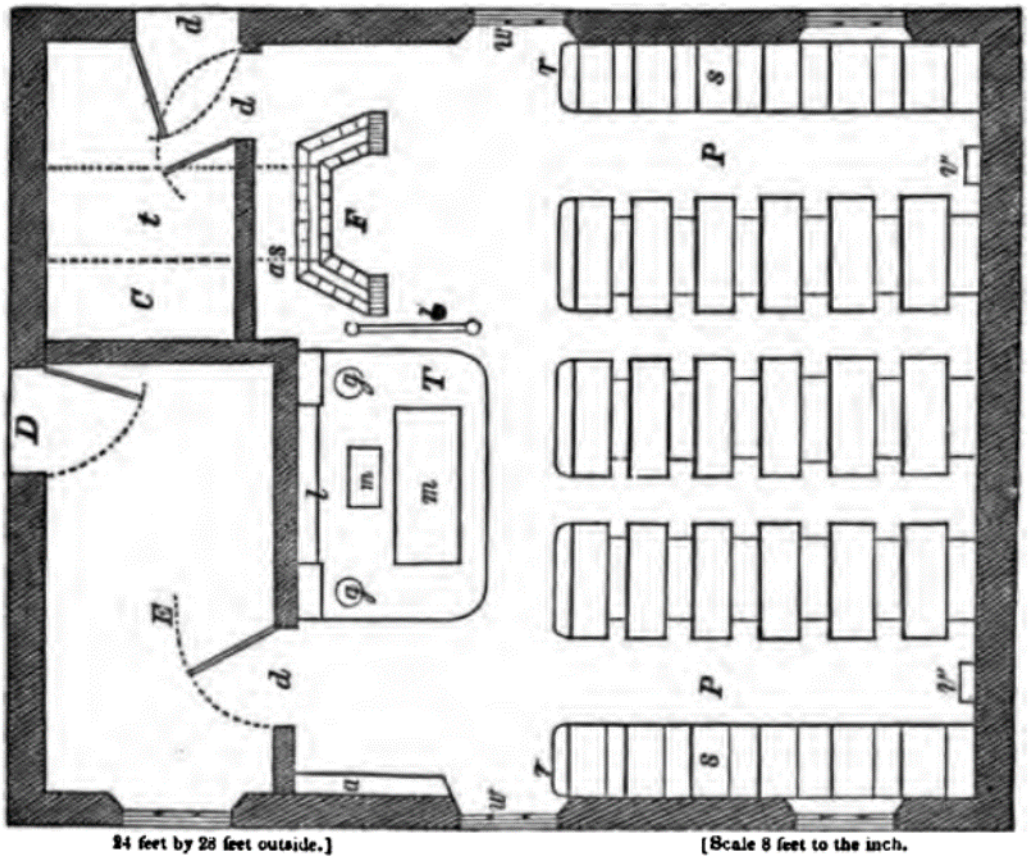


Figure 1 Sample Layout of School Room (Barnard; 1850:72)

The reason that so many one-room schoolhouses are constructed using the architectural style recommended by Barnard is the ability to control a student's learning, as well as behavioral modification through reinforcement. Barnard claimed that by using the arrangement of space that he prescribed, a teacher had the ability to present instruction in four different methods. The four methods are: the "individual instructional and recitation method," which is useful for student recitation or instructing the entire class. The "simultaneous method" is where the school can be assembled and taught in a large lecture format. The "monitorial or mutual method" of instruction is one where the most advanced pupils assist teaching younger

students with the supervision of the teacher. And finally, “the Fücher system,” still in use today, consists of separate teachers providing instruction in one or different subjects (Barnard 1850:79-80).

The arrangement of space and teaching methods are examples of how schoolhouses were used to mirror workplace environments. Barnard’s recommendation of having classrooms with a raised platform for the teacher establishes a clear symbol of authority. The authority figure is a reflection of the ordered workforce represented by shop stewards, managers, and other regulators of a work site. The individual instruction and recitation method allows the instructor to praise or chastise a student for excellent or sub-par work, giving immediate feedback. The monitorial or mutual instructional method prepares the older student to enter the workforce ready to take on the mentor/mentee role when teaching a new worker about the proper procedures and safety standards.

The arrangement of seating in rows also reflects the hierarchical nature of the workforce. The method of promotion and movement upward through the ranks of apprentice to management staff is clearly reflected in the younger students being placed in the front rows of the classroom and progressing to the rear. As education and social maturity of a student increased, the reward of more autonomy, within reason, over school activities also increased.

The methods of instruction espoused by Barnard, combined with what curriculum was followed, can transmit the ideology of the community where a schoolhouse is located. Penmanship taught the need to communicate instructions

clearly in a written manner. The ability to read and follow instruction was necessary in the workforce. A student who exceled in writing skills or mathematics was needed in management to prepare the various reports that helped drive company decisions for the upcoming fiscal years.

The decision of where to locate a schoolhouse within a community is another important element of the arrangement of space. The site selected for the schoolhouse indicates the social value the community places on education. A community choosing to build a schoolhouse in the center of the town means that it is a vital part of society. It can also show a greater commitment by the community to educate students to become a productive workforce.

Schoolhouses in the nineteenth and early twentieth centuries in rural school districts were more than places of education. They were the center of social, political, dramatic, and often religious activities in their communities (Tyack 1974; Gulliford 1996; Rotman 2003). Tyack expresses the opinion that the school is one of the few social institutions that people in rural places encountered every day. Through this regular contact, schools helped create and shape a sense of community (Tyack 1974:17). Lewis Cain, a student at Ritch School, a farm school near San Andres, New Mexico, wrote that the school hosted dances twice a year, one on the Fourth of July and the other usually after the school Christmas program (Eidenbach and Hart 1997:18). Some of the rituals included in the community dances reinforced gender roles. For instance, box dinners prepared by young girls were offered up as auction items for boys to bid on, and boys were encouraged to ask the girls to dance (Rotman

2001:7). Archaeological evidence found in the material remains of some schoolhouses indicate that political discussions took place during social events, providing evidence of adult role models demonstrating Carpenter's good citizen model (Carpenter 2011:67).

Many rural school systems were underfunded by the State of New Mexico, or had school boards that misunderstood the role of schools. Many teachers found it difficult to reach education standards. Most rural schoolhouses looked the same: very rustic with few amenities, sitting in the middle of donated land on the edges of towns. Many were made of scavenged or donated materials, with tamped earth floors and few windows. Very few schools had desks and chairs; even fewer had textbooks and materials for teaching. In her autobiography, Fabiola Cabeza de Baca, one of the early female educators in rural New Mexico, remembered the appearance of the schoolhouse in Santa Rosa, New Mexico when she began her position in 1915. "The room was so devoid of furniture…a weaker heart might have been disillusioned, but I remembered my promise…and Papá's warning…There was no privy for the school and when I told Papá about it, he went to one of the school directors and told him to have one constructed. The director told Papá 'it was not necessary –there were plenty of junipers around the schoolhouse'" (Cabeza de Baca 1954:161, 162).

The archaeological record can show changes in community population, community strength, and state regulations on educational institutions. As community funding increased, more furniture and teaching supplies could be purchased for the schoolhouse. I turn to the site formation process of schoolhouses in the next section.

*Site Formation Process Model*

Historic schoolhouses in the United States are not institutions frozen in time. The development and change of a schoolhouse structure is an on-going process. Changes to the structure exhibit changes in how a school system operates. Many historic schoolhouses in the United States were one room and usually served the community for several purposes.

After the useful life as a schoolhouse, many historic structures have been modified for use as private residences, shops, art galleries, museums, childcare facilities, offices, and storage buildings. There are cases where a schoolhouse has become viewed as a historic site and moved from the original foundation for the preservation of their historical value (Biesaw 2009:91). When you apply the formation process model to a schoolhouse, even if the structure has been relocated, the dynamic history of the individuals who taught or attended there and the interaction with the community it served becomes apparent.

When April Beisaw began archaeological studies of historic Michigan schoolhouses, she found there were no models that would help in determining strategies for excavation sampling that could aid in the interpretation of recovered assemblages based on the knowledge of a site. This model that she created can use formation processes to analyze excavated assemblages. From her experiences gained during the excavation of Michigan schoolhouses, Beisaw created the Site Formation Process Model (Beisaw and Gibb 2009:55) that identifies six key processes that can be applied to all historic schoolhouses.

The model (Table 2) can be used to predict the expected deposition rates of material culture at a schoolhouse site. For this model, material cultural remains can be any item associated with the school, such as bits of blackboard or nibs of writing instruments or architectural features such as nails or window glass. The first column describes the actions that should leave a high deposition rate. These actions are usually events when the building is undergoing change. Medium deposition rates occur when the use of the interior changes.

Table 2
Site Formation Process Model (Beisaw and Gibb 2009:55)

| **Expected Deposition Rates High** | **Medium** | **Low** |
|---|---|---|
| Initial Construction:<br>Renovation<br>Rebuilding<br>Demolition | Concurrent Uses:<br>Reuse<br>Abandonment | Educational Function:<br>Consolidation |
| **Expected Deposits/Features**<br><br>**Schoolhouse** | | **Schoolyard** |
| Architectural<br>Modification<br>Education Accessories<br>Intrusive Deposits | | Outbuilding Remnants<br>Earlier Schoolhouse Remnants<br>Coal Piles<br>Graveled Yard |

Finally, low depositional rates usually occur during daily operations. The lower portion of the model gives a guide to see what deposits and features are expected to be found associated with actions taken at the schoolhouse.

After the initial construction process, schoolhouse renovations were as common in previous centuries as they are today. Renovations often meant the

introduction of electricity and sanitary facilities. It could include an addition to the structure. The renovation and addition to structures create concentrations of dropped nails or window glass, which can increase deposition of education-related items.

The second process in high expected deposition rates is rebuilding. In a rural community, initial construction of a schoolhouse was often done with donated materials and placed on donated or unused property. As towns grew, it was important to have the schoolhouse near the center of town, so it was accessible to the greatest population. Relocation of an institution reflects the demographic change. As state funds became available, the original structure was usually renovated or rebuilt. Relocation of a building is considered part of the rebuilding process. Relocation can mean a new home for a school structure, but not associated structures such as storage sheds or privies, are often destroyed. Relocation of a schoolhouse usually means materials are left behind. These materials can create multiple archaeological sites for the same schoolhouse.

The medium deposition rates begin with concurrent use. This process is one of the most prevalent in rural community schools. Schools often did double duty as a dance hall on Saturday and a place of worship on Sunday. The processes of abandonment and consolidation (in the low expected deposition category) occur when many small districts combine to serve many towns or regions. Abandonment was not a haphazard event. As schools became surplus to a school district, each building was stripped of any usable furnishings to be used at other locations. The building itself could then be auctioned for recycling. Abandonment and consolidation do not create

much of a deposition layer, but can be used to date the end of the deposition cycle of a site.

Schoolyards are rarely considered contributors to the site formation process. There are several reasons for overlooking excavation of a schoolyard. First, the use of the schoolyard varied daily depending on the activity. What was a baseball field one day, serves as a community picnic ground on the weekend. A second factor is the number and age profile of the children using the yard for playtime. Depending on the age of a child, almost any item found in a schoolyard can serve as a toy and taken away to be played with in other locations.

An illustration of how to apply the Site Formation Process Model (Beisaw and Gibb 2009:55) is the excavation of two former schoolhouses in Michigan. The Town Hall School, Pittsfield Township, School District 7 schoolhouse was built in 1852 (Figure 2). This structure was used as a school until it closed due to consolidation in 1957. The building was relocated and repurposed on the campus of Eastern Michigan University in July 1987 to house a tribute to the university's contributions to teacher education.

In 1996, archaeological survey and testing at the original site were undertaken to locate the remnants of the 1852 brick schoolhouse. The excavation of Town Hall School was limited in scope, but it provides a method of interpretation of life in the schoolhouse during its use. At the original site, shovel test pits were excavated at various locations to determine the location of the foundation and possible walls. These test pits contained more than a thousand artifacts. The majority of these

artifacts were brick and mortar suggesting this was the original location of the schoolhouse. Beisaw was also able to locate a layer of coal-ash suggesting the trash pile. General artifact density increased inside the coal ash (Beisaw 2009:65). Items that were found in the trash pile included a variety of slate pencils and tablet fragments, ceramic and glass sherds, later identified as a medicine vial that contained a patent medicine with high alcohol content. The variety of school artifacts, such as slate pencils shows the social strata of the students. The lack of pens and inkwells among the artifacts would suggest that funds were limited, and students were taught using the cheapest material available.

Figure 2 Town Hall School, Eastern Michigan University, http://www.emich.edu/maps/

The excavation of the Blaess (pronounced Bliss) School Site in Saline, Michigan in 2003 is another example of how the Site Formation Process Model (Beisaw and Gibb 209:55) can be applied to schoolhouse archaeology. This schoolhouse began operation in 1857 and was used until the consolidation period of the 1930s. This schoolhouse is an excellent example of several key processes of the expected deposition rates for a structure. The first schoolhouse burned soon after its initial construction in 1857. The second building was part of the process of rebuilding between September 1867 and September 1868 (Beisaw 2004:4). This replacement was built on the foundation of the original building, which preserved a rich deposition layer.

At the beginning of the excavation the property was being used for other purposes, so excavation and testing was limited to five shovel test pits. During the initial testing period the schoolhouse was removed which allowed for a full excavation of the foundation. This excavation yielded 9,076 artifacts including 49 slate pencils, four modern wood pencils, five shell and one plastic buttons, 5,574 machine cut nails, and 50 wire nails. There were also fire cracked foundation blocks and melted glass (Beisaw 2004:6). The assemblage is evidence of the catastrophic fire of 1857. These artifacts also confirm the expected high deposition rate predicted by the model during initial construction phase. The fire of 1857 provides site-specific data that shows the history of education at the state and local level, as well as the history of the community served by the school. The role of the schoolhouse in rural communities tells a significant part of the history of the life of a community.

When using the Site Formation Process Model (Beisaw and Gibb 2009:55) it is necessary to apply at least three components in order understand how a historic schoolhouse functioned to create a well-functioning workforce. The first component of Initial Construction exhibits the need for a structure to be built according to needs of the community. The second component provides evidence of the use and adaptation of the space. The final component addresses adaptation of the structure and use of space to reflect the changing attitudes of a community. Interpretation of these components can also spur the preservation of schoolhouses.

*Schoolhouses and Historic Preservation in New Mexico*

Historic preservation has been an interest in the United States since the middle of the nineteenth century. Mount Vernon, George Washington's residence, was also the first preservation project undertaken by the organization Preservation Virginia, which was also the first statewide preservation organization in the United States. By the mid-twentieth century, the number of preservation organizations had grown, and universities began offering advanced degrees in historic preservation. By the end of the century, nearly every county and state had a preservation organization. Preservation organizations in the United States are provided guidance from the non-profit organization, the National Trust for Historic Preservation. The Trust oversees guidelines and educational standards for those interested in preservation work.

Cultural heritage is divided into two typologies:  tangible (the built environment of institutions, public buildings, and private residents) and intangible (language, music, skills and customs). People choose to preserve their past through a

desire to remember it and to help transmit the ideas of cultural heritage that are familiar. Francis McAndrew says this process begins with an attachment to place (Spennemann 2011). This attachment to place creates a value of a positive affective association between individuals and their environment. This association creates feelings of comfort and security (Spennemann 2011). The sense of place is related to concepts of identity and experience that result from the interaction of people to that environment. Place identity, then, becomes a merger of a personal attachment to a particular location. It gives a person a sense of belonging and purpose.

The preservation of schoolhouses is important to New Mexico because these institutions provide sense of belonging to specific environment and create a purpose associated with the specific schoolhouse. Preservation can also provide a clear historical image of the Territory of New Mexico's transition into the Union. By preserving schoolhouses, archaeological information can be studied to see how this territory populated by people from a wide variety of backgrounds created sense of place. After the Mexican-American War (1846–1848), New Mexico became a territory of the United States. The question of how to incorporate this diverse population into a nation needed to be addressed. The solution was education. The Territorial Government created a state-wide school system that aimed to incorporate the various populations into one cohesive community.

Early education efforts in the territory were limited in the early days to small schools in Albuquerque, Santa Fe, and Las Cruces, the three largest population

centers in the state at the time. First education laws in the territory did not exclude Hispanic, African-American, or Anglo children; schools were open to all students.

The education of Native Americans in New Mexico was restricted to the federally run boarding schools. The establishment of boarding schools by the Bureau of Indian Affairs through legislation by the Indian Trust Act marked a new era in Native American education. The goal of the boarding school in this period was assimilation through immersion. Upon arrival at the boarding schools, both boys and girls received very short haircuts, uniforms, and English names. These names were usually assigned at random, though some children were allowed to choose new names. The use of native languages and religion was banned, and all were expected to attend church services and encouraged to convert to Christianity.

Discipline was stiff and included confinement, extra chores, and corporal punishment. The federal government created four Indian Boarding Schools in New Mexico. The Albuquerque Indian School (Figure 3) was the largest in size and student population; followed by Saint Catherine's School and what is now Saint John's College in Santa Fe. The smallest was a reservation school called Encinal Day School, located in Valencia County.

The integration of African-Americans into the territory of New Mexico was not a smooth path, though certainly much easier than Native American experience. The first African-Americans to spend more time than brief visits were the famous "Buffalo Soldiers" first stationed in New Mexico in 1866. After being dismissed from service, many soldiers returned to their home states to experience extreme racial

prejudice and the “Black Codes” enforced in the South. These repressive laws, combined with the experiences of freedom from persecution, drew many African-Americans back to New Mexico. The territory remained integrated until the introduction of “Jim Crow” laws in the 1920s. These laws established segregation and the removal of African-American children from the public schools (Chacon 1925:109). Interestingly, only schools in the southern part of the state, east of Deming, including Las Cruces, Hobbs, and Alamogordo, became segregated during this time period (Berry 1976:66–67).

Figure 3 Albuquerque Indian School Complex, ca. 1910. (Courtesy of the National Archives, Washington D.C.)

The second reason that schoolhouses in New Mexico need to be preserved is that they are illustrations of how the labor force for the major industries (mining, agriculture, ranching, and timber) was organized to educate a racially diverse population. The archaeological record will show how the arrangement of space and use of curriculum created an efficient workforce in rural communities. The curriculum selected by the school system in Lake Valley, New Mexico, is a good example of specialization in subjects that students in a rural community would need to work in the frontier industries of the town. (Appendix B is a list of the classroom textbooks and library books found in the 1904.)

The third reason for preservation of many rural schoolhouses in New Mexico is a lack of extensive research and excavation. Preservation of these structures might show that the specialization of the curriculum at Lake Valley might prove not be the norm for the entire state. The Site Formation Process Model (Beisaw and Gibb 2009:55) can be applied to enhance our understanding of institutional archaeology of schoolhouses. Many relevant answers to questions about the use and arrangement of space and the method of instruction to create an efficient workforce in communities can be exposed.

One of the challenges to preservation efforts is there are not many pristine examples of rural schoolhouses in New Mexico. How this process works will be discussed in the next section of this chapter.

The National Historic Preservation Act (1966) established the National Register of Historic Places. This Register is administered by the National Park

Service, an agency within the Department of the Interior. The Register is an official list of districts, buildings, structures, and objects deemed worthy of preservation. Property listed in the National Register, or located within a National Register Historic District, may qualify for tax incentives derived from the total value of expenses incurred preserving the property. Each state also has its own register of significant properties. In New Mexico, the Register is administered by the New Mexico Register of Cultural Properties (New Mexico Register), a part of the New Mexico Historic Preservation Division in Santa Fe, New Mexico.

The Archaeological Records Management Section (ARMS) of the Historic Preservation Division is charged with maintaining and protecting all the records of archaeological investigation in the State of New Mexico. They also provide access to these records for qualified users, since many cultural resources include sites that can be culturally sensitive to Native American groups. ARMS also manages and maintains the automated system that gives users access to the records systems to examine the archaeological records, and the ability to file the necessary forms for historic preservation. This system is called the New Mexico Cultural Resources Information System (NMCRIS). To understand how schoolhouses can be listed on either Register, it is necessary to look at the guidelines that determine the cultural and historical significance of a structure.

The first step in nominating a schoolhouse for the New Mexico Register is to complete a “Laboratory of Anthropology Site Record (LA form)” and a “Historical Cultural Properties Inventory (HCPI)” form. These forms from the Department of

Cultural Affairs are used to record attributes of a site. The LA form contains a description of the size, location, and directions to the site. It also has the recorder of the site explain the conditions and artifacts that were found listed in detail. It also has sections for geographical locations and other items to support the nomination process. The HCPI form is used for standing buildings. It records the location of the structure, the architectural style, and what the original use was, and its current use. It also has a section for evaluating the historical significance of the structure and why it should be preserved. The forms are used by the State Historical Preservation Office to evaluate whether or not a site is eligible for listing on the State or National Register.

As part of the evaluation process, a historical site has to meet four criteria to qualify for listing on the State or National Register. These criteria, found in the National preservation Act of 1966 as "A) Property is associated with events that have made significant contributions to the broad patterns of our history; B) The property is associated with the lives of persons significant to our past; C) Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction; and D) Property has yielded or is likely to yield, information important in prehistory or history" (US Congress 1966:2).

A search of the NMCRIS system listed 52 historic schoolhouses in the New Mexico Register. Twenty-nine of these schoolhouses were also accepted listing on the National Register. Appendix A contains a spreadsheet of detailed information on each

listed schoolhouse. Figure 4 is a map of the location s of the listed schoolhouses. This figure shows that many of the schoolhouses that have been listed, and are being preserved, represent a wide variety of communities around the State of New Mexico. This search also revealed that there had not been any archaeological excavations at any of the listed schoolhouses.

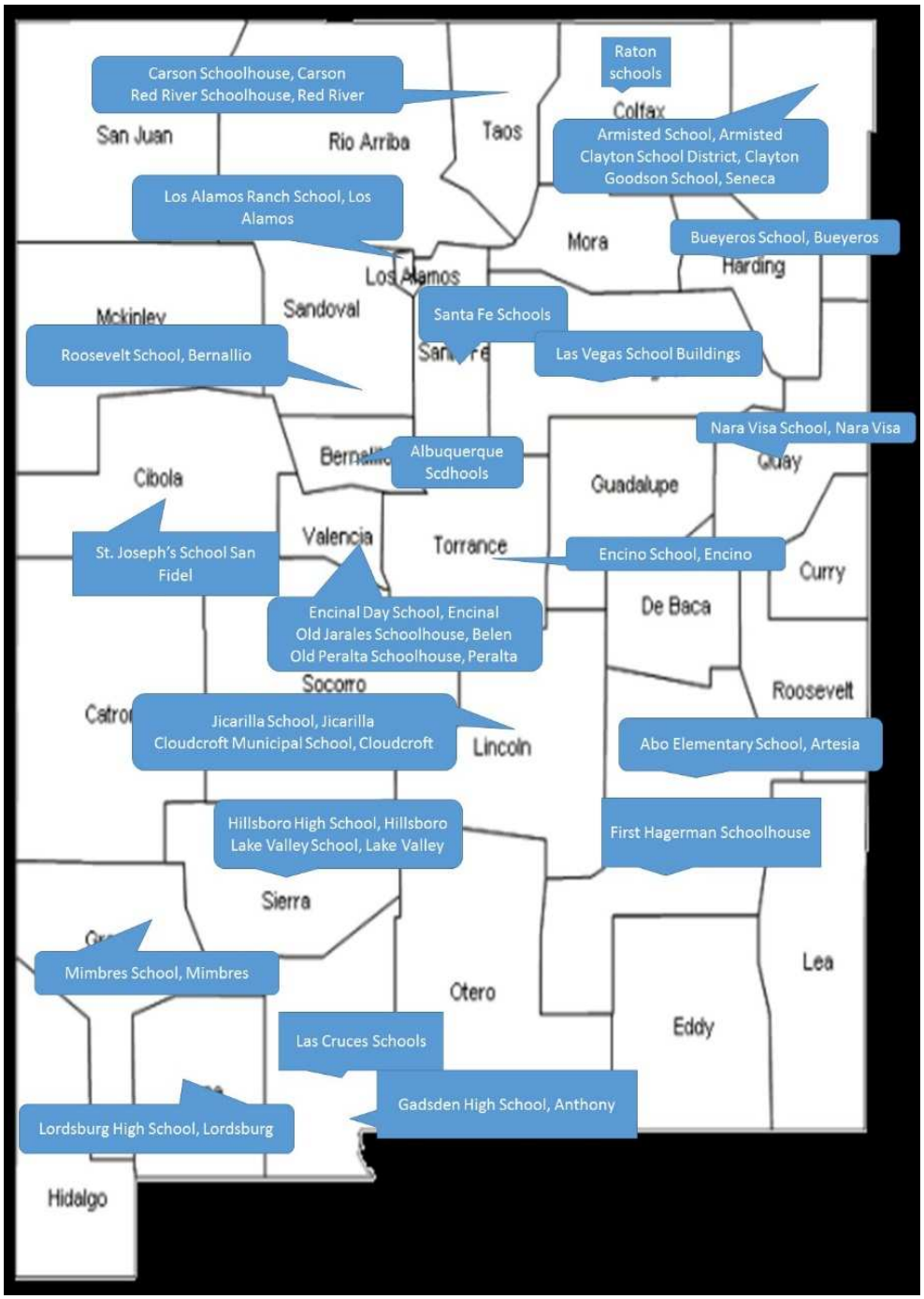


Figure 4 New Mexico Schoolhouses on the State and National Registers

Longfellow School in Raton is an example of a historic schoolhouse that has experienced renovation and is still in use. Longfellow School was a Works Project

Administration (WPA) structure built in 1939. In the 1960s it was remodeled adding a library and four classrooms (Kammer 1995:4). The challenge of intensive excavation at this type of location is finding the original layout of the schoolhouse, as well as the scope of renovation that has occurred over time. By applying the Educational Structures Model (Barnard 1850:60) to Longfellow, the process of how the use of space has adapted and changed to meet educational standards can be examined. The model can also show how the schoolhouse supports the community of Raton over time.

The following profile of one rural schoolhouse that has no excavation work will show that the Site Formation Process Model (Beisaw and Gibb 2009:55) provides lots of information about the use of the schoolhouse site and the value of the place in the community. The Jicarilla Schoolhouse in Lincoln County, New Mexico (Figure 5) was placed on the State Register in 1977 and on the National Register in 1983. The Schoolhouse was constructed in 1907, contemporary with Lake Valley. The community of Jicarilla was founded to support several placer gold mines in the Jicarilla mountain range. The information provided on the National Register form demonstrates the application of high expected deposition rates through the initial construction phase. It also fulfills the process of medium expected deposition rates in the reuse phase.

Figure 5 Log Schoolhouse in Jicarilla, New Mexico (Photo by author, 2016)

Information on the initial construction phase of the Jicarilla Schoolhouse provides insight into the value the community placed on education. The school building was funded by some who donated money and by others who gave materials. Phillip Reasoner, Sr. is listed as providing the carpentry work (Swanson 1982:8). The building is constructed of local ponderosa pine using dovetail notch construction and covered with a tin roof. There are remains of plaster painted a light blue. The structure was replaced in 1930 with a more modern school structure, and the original building served as a Catholic church until it was abandoned as the population moved away.

Effie Peacock was a student in both schoolhouses and wrote that the community was proud of the construction. It was used as a community building, and the community supplied lumber and money for an organ (Effie Peacock, personal communication to Mrs. Snow 1979). Excavation work at the Jicarilla Schoolhouse focused on the process of abandonment as a school structure and reuse as a dedicated religious institution could yield information about what material culture was considered important to move to a new facility and what objects were abandoned or lost. It can also provide answers to research questions by providing information on what materials were used inside the classroom.

Studying the schoolhouses will show how the formation of a school system that changed over time, and adapted the space inside the building to meet the educational needs of students in a mining and ranching community.

The former mining town of Lake Valley, New Mexico, will be examined to show the application of the formation process and preservation efforts of the schoolhouses. The town was settled during the Territorial Period (1894–1912) until Statehood in 1912. By applying the Educational Structures Model of Barnard (1850:60), it is possible to show the adaptation of space and curriculum over time to create a productive workforce for Lake Valley.

# CHAPTER 3
# HISTORY OF LAKE VALLEY MINING DISTRICT, NEW MEXICO

In this chapter I will outline the history of Lake Valley. I will also explain the challenges of educating children in this setting to create an efficient workforce for the mining industry in Lake Valley.

When Lake Valley was settled in a rural part of the Territory of New Mexico, Sierra County was still considered the frontier. The Chiricahua Apache used the land for hunting and gathering for centuries. The use of high-powered explosives made mining a dangerous occupation. Single miners were the majority population in most mining communities. Educating a child in this environment must have been a challenge.

The map (Figure 6) shows that Lake Valley existed in four distinct locations. The first settlement was settled by George Lufkin in 1878 on the site of the Lake Valley Cattle Company about three miles north of the current site. The new district name was Lake Valley, and the first campsite was named Sierra City. The city grew rapidly but was almost immediately in trouble when Victorio and his band of Apaches attacked the camp killing 16 men. The site was abandoned, leaving behind the men buried on a hill above the now dry lakebed. During the 1800s, three lakes surrounded the town fed by the surrounding hills and Berenda Creek. Originally, the town had about 14 dwellings gathered around the largest lake, Silver Lake (Cushman 1965). The feeders flooded the original town site and the town moved one mile south

to the second location. The final move to the current location was inspired by the discovery of a major silver lode.

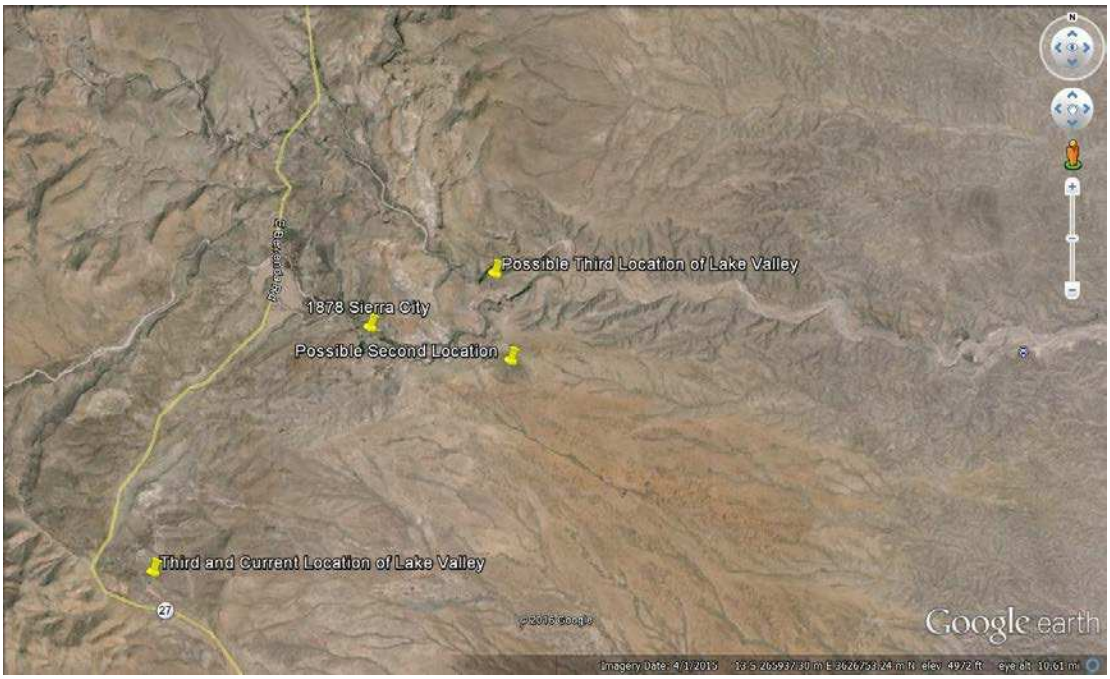


Figure 6 Map of the Locations of Lake Valley, NM (Google Earth 2016)

George Lufkin and his partner Chris Watson found silver in 1878 at the McEvert's Ranch. After a few modest returns, the mine was sold. A syndicate was created by four companies—the Sierra Grande, Sierra Plata, Sierra Bella, and Sierra Apache saw the potential and purchased the rights. Each company struggled financially, and after several consolidation efforts through mergers and purchases, the Sierra Grande became the major company in business (Eveleth 1986:294).

The Sierra Grande Mining Company soon discovered a large silver deposit in August 1881. This horn became one of the richest silver discoveries in the western United States. The name given to the mine shaft was Bridal Veil (Figure 7). The

name referred to the purity of the silver found in the vein. The silver was pure enough to melt from the heat of carbine lamps miners wore creating a lace work of silver on the chamber walls. The mineral chamber was approximately 10,000 square feet, with a 10 to 20-foot blanket of silver so pure that the miners sawed and cut blocks of the mineral rather than blast it out. In the 12 years after discovery, approximately 2.5 million ounces of silver were mined before the bust of 1893 (Scher 1979:18).

Figure 7 " The Bridal Chamber Mine Entry." Henry Schmidt Pictorial Collection (PICT 000-179-0935), Center for Southwest Research, University Libraries, University of New Mexico.

The silver was melted into bars and loaded into ox carts and transported to the nearest smelters at the time, located in Las Vegas, New Mexico (Browning, 1991:10). The discovery of this pure silver reached its height when a large mass of silver ore called “Jackson’s Baby” (named for the manager D.H. Jackson) was found. It measured 6 ft x 4 ft x 2 ft, and value was estimated at $60,000 to $80,000 ($75 to $115 million in 2016 dollars) (Eveleth 1986:295).

Figure 8 "Arrival of ATSF Train in Lake Valley." HENRY SCHMIDT PHOTOGRAPHS - New Mexico State University Library, Archives and Special Collections, ID ms0333

The discovery of the silver lode caused the rapid growth of Lake Valley in a very short time. In 1882, the population was estimated to be 500. By 1884, approximately 1,000 people were living in the community. In 1884, mining syndicate financed the Santa Fe Railroad’s (Figure 8 shows a train and station house) building

of a rail spur from Nutt, New Mexico to Lake Valley, operating as The New Mexico Railroad Company. The opening of the rail line made the exchange of goods, silver, and people much easier. From the railhead, various stage lines delivered passengers and sundries to the interior of the region. The spur line declined in use and was abandoned and eventually dismantled in 1934 (Myrick 1990:205).

The mining industry and railroad access created a very diverse social structure in Lake Valley. The cultural and ethnic makeup of the town was such that it could claim to be among the most diverse communities in New Mexico. There is evidence from census records that Lake Valley included Germans, Mexicans, Chinese and Portuguese. Pedro Martinez, one of the last remaining residents of Lake Valley (the other being his wife, Sabina), was brought to the area from Zacatecas, Mexico in 1906 when he was two years old (Scher 1979:18). He remembers that there was a section of the town that went by the name of Chihuahuita, a derivation of the name of the city Chihuahua, Mexico. It was given this name because most of the Hispanic population lived there. This neighborhood was located where State Highway 27 passes near the 1893 schoolhouse (Cushman 1975). Figure 9 shows houses in the background where Chihuahuita could have been located.

The existence of an ‘ethnic neighborhood’ suggests that while the town was culturally diverse, there may have been some separation based on ethnicity, especially concerning Mexican populations. Interviews with former residents of Lake Valley by the Bureau of Land Management (BLM) Recordation Project along with an

examination of the Sanborn maps show that this community was based on social status and occupation rather than intentional segregation based on race.

> Examining the structures and trash piles that have been found in this part of town shows very little difference in consumption to distinguish a difference between Chihuahuita and the rest of Lake Valley (Browning 1991:70). The exception is there were no champagne bottle bases or specialty items found. What can be inferred from this evidence is that ethnic groups might have had a different standard of living than residents of the mining or business districts. However, the lack of archaeological evidence can be due to the construction of State Highway 27 destroying any artifacts. Local ranchers also scavenged building materials before the BLM took control of the site, which has altered the landscape.


Figure 9 "Mr. Eastborn at Schmidt's Mining Residence, Lake Valley." Note the 1893 schoolhouse in the background, left. Henry Schmidt Pictorial Collection (PICT 000-179-0831), Center for Southwest Research, University Libraries, University of New Mexico.

There is no evidence of Chinese presence in the community, though Pedro Martinez said there was a Chinese laundry in operation in the town site. However, any archaeological record of this operation was removed when the parking lot for the present schoolhouse was expanded (Browning 1991:9).

After the silver crash in 1893 and a fire that destroyed most of the town in 1895, the town managed to survive through diversifying its economic base. The businesses that did survive became suppliers to the mining communities north along the front range of the Gila Mountains. In addition, exotic angora goats and other breeds of sheep were being grazed in the surrounding countryside (Browning 1991:13).

In 1900, the town had become a supply center for local ranchers and the few remaining miners. In the same year, Lucius Fisher won the majority of the mining property in a poker game in Denver, Colorado. Fisher tried to start large scale mining again, but in a few years gave up the effort.

By 1915, the silver mines had been closed, but the entry of the United States into World War I saw the need to stockpile the mineral manganese, and production in mines began again. An abundant lode of manganese was found in several of the mines at Lake Valley. Manganese is a mineral that is essential as an ironmaking component. It is also used for creating aluminum alloys as well as a major component in dry cell batteries. Until recently, there was no substitute for the mineral, considered a strategic metal to the defense industry (Jones 2000:50.1).

The military stockpiling of manganese caused a resurgence in population, and community building projects began. A new chapel was built, and the 1904 schoolhouse was completely remodeled to meet the current standards. The manganese mining was not sufficient to maintain the large population, but the industry received a temporary revival during the Second World War. Federal subsidies for mining strategic metals maintained the population until 1955, when the government program was discontinued.

Remaining residents suggested that several mines were being worked as late as the 1960s, but the last documented period of mining at Lake Valley was conducted from 1958 to 1959 (Ackerly and Stuedli 2004:85). By the end of the 1950s there were only 20 people left in the dying town. In 1955, the post office closed its doors for the last time. The last resident of the town moved out in 1994, leaving Lake Valley a true ghost town.

The history of Lake Valley demonstrates that the creation of a schoolhouse can change the way a community is perceived by those who were moving to the area. More families were moving to Lake Valley to support the mining industry, supply companies, and as ranch hands. The creation of a school system in Lake Valley would create an efficient workforce and pass on values of the culture of the mining industry.

The town of Lake Valley is an excellent study site. There two schoolhouses that remain standing in the mining district. The next chapter will pose the research questions of this study and will present what data will be used to answer the questions in this research setting.

# CHAPTER 4
# RESEARCH QUESTIONS AND DATA COLLECTION

My goal is to answer four questions about the schoolhouses at Lake Valley. The data collected help create a picture of a student life over time at Lake Valley, New Mexico. The education system in Lake Valley shows how schools transitioned from local to territorial to state and federal administration.

*Research Questions*

Question 1: **How are the spaces of a rural schoolhouse and classroom organized to train students to be a productive worker?** To answer the question of training, the Educational Structures Model (Barnard 1850:79-80) will be applied. The use of this model will examine why the location of the 1893 and 1904 schoolhouses at Lake Valley were selected. It will also provide evidence of the organization of space inside schoolhouses that facilitated learning. The application of the Site Formation Process Model (Beisaw and Gibb 2009:55) to the 1893 and 1904 schoolhouses will provide answers to how the structures were constructed and interiors were adapted over time. No surface collection or excavation work will be done during my research, but original items in the museum from previous collection work will be examined to see what expected deposition rates occurred and if they provide evidence to indicate how classroom space was used.

Question 2: **Do classroom curriculum and activities reflect the community's desire to educate a productive workforce?** The application of Marxist Educational Theory (Althusser 1971; Baxter 2005; Bowles and Gintis 2001)

to curriculum and classroom activities will show that choices of textbooks (part of the museum collection at the site) reflect the need to teach subjects for work in the mining industry, supply companies, and ranch management. The application of the Site Formation Process Model (Beisaw and Gibb 2009:55) examines the deposition rates in the 1893 schoolhouse and compares material used in the schoolhouse with the material in the 1904 schoolhouse. The application of the model will give evidence of the changes in activities and curriculum to support the need for a productive workforce to support industry in Lake Valley.

Question 3: **Is the life cycle of the Lake Valley schoolhouses typical of other rural New Mexico schools?** This question will compare the Lake Valley schoolhouses to other historic schoolhouses in New Mexico that are on the State and National Register to see if the life cycles are similar. The similarity in life cycles become apparent when the Educational Structure Model (Barnard 1850:79–80) is applied. I can also identify any differences in the life cycle to see if other models for educational structures were applied. Other schoolhouses in New Mexico having a similar or different life cycles, can also answer the question of whether or not schools were adapted to serve the major industry of the town, or were using state educational standards.

Question 4: **What further work on preservation can be done in New Mexico?** The study of institutional archaeology in New Mexico should expand. Preserving schoolhouses in New Mexico will provide case studies to see if the role of education in communities provided an effective workforce. By preserving historic

schoolhouses many study areas will be preserved to examine the role of education in communities and the adaptation of local schools to a state-run institution.

*Data Collection*

I have collected and analyzed different sorts of data to determine the answers to my research questions.

The first data type data collected and analyzed are the archaeological records commissioned by government agencies that document the archaeology and preservation of the Lake Valley Mining District.

The first government agency that contains records of Lake Valley is the BLM archives in the District Office in Las Cruces, New Mexico. The BLM has archaeological reports that have been commissioned to record an inventory of what remains in Lake Valley. *An Archaeological Inventory of the Lake Valley Mining District, Sierra County, NM* (Ackerly and Stuedli 2004) is a focused report on what archaeological remains are at Lake Valley. Ackerly and Stuedli's (2004) report contains detailed building survey of Lake Valley where each structure has been photographed and measured. There are also records of items found in trash dumps that are associated with various structures. A second report available is *The Lake Valley Recordation Project, Report 037-91-09* (Browning 1991). This historic preservation report provides the forms that are needed to nominate Lake Valley Mining District to the State Register of Cultural Properties. The forms included are the LA forms for each structure in the town and HABS/HAER forms that contain

detailed architectural drawings of each structure in the nominated area, including the 1893 and 1904 schoolhouses in Lake Valley.

The second source of government agency data that will be collected are site records available through NMCRIS at ARMS. Many of these records include detailed explanations of material found at cultural properties. Each form can also contain site drawings, and sometimes photographs of items found at each location. These records are all part of the historic preservation process. Some records contained in NMCRIS were marked as not to be released for public information and were excluded from data collection. Reasons that a property can be excluded for public release can be because it is privately owned and the owners requested exclusion, or because of the sensitive nature of items found at the site.

Photographic data of the 1893 and 1904 schoolhouses, as well as other buildings in Lake Valley, was collected from the Rio Grande Archives and Government Documents Collections in the Branson Library at New Mexico State University, and the Center for Southwest Research, University Libraries at the University of New Mexico, and published histories of mining in New Mexico. Photographs from site visits have been taken and are used for comparison to the historic photographs. Comparing the historic photographs with current photographs of Lake Valley data to document the use of space, the grounds, and adaptation of the schoolhouses over their life span is possible.

Photographs and notes from the 1893 and 1904 schoolhouses contained in the museum at Lake Valley managed by the BLM were analyzed to create a limited

inventory (Appendix B). The museum collection holds original furniture (student and teacher's desks, blackboards, various maps, textbooks) and pens and inkwells found in trash piles near each schoolhouse that date to the period when the building functioned as a schoolhouse. The reason for a limited inventory is because the BLM is in the process of replacing the roof at the 1904 schoolhouse. As part of preparation for the construction work, the BLM staff archaeologist, along with the resident site managers, made a complete inventory of all items in the museum, and are preparing accession forms for the items they plan to keep. They will remove duplicate items, or items destroyed by on-going rodent infestations.

Data from local newspaper articles related to the history of Lake Valley and the 1893 and 1904 schoolhouses has been collected. These articles will discuss the funding of the construction of the second schoolhouse, after the destruction of the majority of Lake Valley by fire in 1898. The data can also provide information on the concurrent use of the schoolhouses for social activities for the community.

The final kind of data collected was from the U.S. Census Bureau enumeration rolls describing the inhabitants of Lake Valley (Appendix C). Specific data collected is about the students at Lake Valley. It will include names, birth dates, gender identity, enrollment in school, ability to speak English, and the birth location of parents and students. This data will show the age distribution of the students to understand the arrangement of classrooms using the Educational Structures Model (Barnard 1850:79-80). It will also show balance between sexes and structure of curriculum.

*Methods*

The methods of data collection involved two site visits to Lake Valley. The first was to photograph the exteriors of the 1893 and 1904 schoolhouses to document any adaptation and change of the structures. The photographs taken are needed to provide documentation of several of the key processes of Site Formation Process Model (Beisaw and Gibb 2009:55). The expected deposits and features reflect architectural modification and use of education accessories. The second site visit was to photograph and inventory the collection in the museum at Lake Valley. The museum is not curated, and until recently no inventory existed. The inventory of items that I recorded were only items related to the schoolhouses. This inventory will be given to the BLM to help in the curation of the museum (Appendix B).

Computer research was also required to collect data. Mining the NMCRIS system gathered the location and information of all historic schoolhouses in New Mexico. Each record was examined to see if it contained information on historic preservation of historic schoolhouses. The records were also read for information about any intensive archaeological research done at each schoolhouse. The enumeration rolls of the U.S. Census are in the public domain, in microfilm form. Through the use of volunteer transcribers, Ancestry.com LLC, created a digital database of all the census records of the United States. The census data used in my thesis was gathered using their website search engines.

*Limitations*

When collecting the necessary data, I found that there were three limitations to my research. The first limitation is the archaeological records itself.

At Lake Valley, the BLM provided me open access to the 1904 schoolhouse. I was able to do a surface analysis of any artifacts around the schoolhouse. I was also able to make measurements of the interior and exterior of the buildings to provide an archaeological assessment of changes to the structure. The 1893 schoolhouse is on private property and is locked. Access was limited to photographing the exterior of the building to record any architectural changes to the structure.

The site has not always been secured, and there is evidence of artifact collection over the years. Before the BLM took over the administration of the site, the 1904 schoolhouse grounds were disturbed when the parking lot was expanded (Browning 1991:9). Finally, there have not been any intensive archaeological excavations undertaken at the 1904 schoolhouse at Lake Valley.

Archaeological records relating to the historic preservation of schoolhouses throughout New Mexico is also limited. A search of the records on the NMCRIS did not return any forms relating to intensive archaeological work at any of the historic schoolhouses in the system. If any work has been completed, it appears that these reports are not accessible to the public.

The second limitation to data collection is missing or lack of written records. The student records at Lake Valley are not complete. There are a few student lists providing names of students in school at the 1904 schoolhouse. These do not provide

any information about years of attendance, subject matter studied, and performance. Any written records covering student information at the 1893 schoolhouse are missing.

The third limitation in collecting data for analysis is the material evidence located in the museum. There is no inventory of the collection. The arrangement and interpretation of exhibits at the museum give you the feeling of being in an antique shop. Artifacts of the mining industry are mixed with schoolhouse artifacts or artifacts found at other buildings at the site. Each exhibit case containing material evidence needed to be examined. Items needed to be identified to see if they were relevant to schoolhouse use. Then, I tried to identify if the objects by publication date or markers marks to see if they belonged in the 1893 or 1904 schoolhouse.

Lake Valley provides a good example of how schoolhouses were created in rural communities that reflected the needs of that culture. Buildings have adapted and changed to meet the educational needs. The next chapter will present the analysis of historical data and discuss the history of the education system of New Mexico and Lake Valley.

# CHAPTER 5
# HISTORICAL ANALYSIS

My goal in this chapter is to understand how children were educated in New Mexico, and how the design and location of the 1893 and 1904 schoolhouses at Lake Valley reinforce the ideology of producing an obedient workforce.

Education in New Mexico differs from other education systems in the United States. A public school system was established during the Mexican period (1821-1848). A component of multi-culturalism was included early in the curriculum and training.

After joining the United States as a territory in 1848, the education system again was adapted to reflect the general population of the New Mexico Territory. There were an estimated 75,000 Spanish-speaking people living in the Southwest, with New Mexico's population being roughly 60,000. Fifty percent of New Mexico's population was Spanish-speaking (U.S. Commission on Civil Rights 1972:76).

The territorial government understood that a non-English speaking population was in the minority in the territory and adopted education laws that reflected the need for a unique education system that recognized the multi-cultural variations in the territory. Education laws were placed in the territorial and state constitutions, placing a high value on the education of children of all backgrounds rather than keeping separate education systems for each ethnic identity. The only exception was Native Americans. The Indian Boarding School system kept the education of Native Americans under federal control.

*History of Education Systems in New Mexico*

The history of public education in New Mexico began with the Spanish Colonial period from 1540 to 1821. Early efforts of education were primarily focused on conquest and conversion of the indigenous population. These early schools were established by royal decree in 1721 that directed the Church to establish a school in villages and pueblos in the territory. This decree did not include any means of financial support, and therefore, very few schools were ever established (Mondagrón 2005:84).

Mexico gained its independence from Spain in 1821. The Constitution of the United Mexican States of 1824 mandated that public schools be established in each state and colony with parents of students financially supporting the schools in their community. The rural nature of many populations meant that communities often lacked the financial stability to fund the schools as laws required. By 1827 there were 19 public schools in the territory of New Mexico, mostly in the more populous northern communities. Most of the schools in the north remained under the control of the Catholic Church (Nanngina 1942:5)

The American occupation of New Mexico began in 1846 and lasted until statehood in 1912. Very little is known about the structure of the system of education. As settlers moved into the territory, the Presbyterian, Congregationalist, and Baptist denominations followed and established private schools. Because of the sparse populations in the southern part of the state most of these schools were confined to Albuquerque and the northern communities.

Communities that established schools soon benefitted from the stability. After economic and physical security was created, schools produced students who became educators, lawyers, scientists and community leaders (Mondagrón, 2005:85). Towns that established schools could see an immediate economic impact, and the development of a territory-wide system soon spread. A school system attracted a more stable population base; an entire family would relocate to the town, rather than single transitory workers.

With the ratification of the Constitution of the Territory of New Mexico in 1850, Article VII made provision for the support and maintenance of public schools. The difference between this provision and previous Spanish and Mexican mandates was that Section 2 of this article also included perpetual funding from taxation and that those monies collected for this fund would not be diverted to other projects. With this legislation, the importance of education became a protected priority for the future of the state (New Mexico Territorial Assembly 1850:32).

The legislators passed laws that created the county school systems that gave local official control to the Justice of the Peace. Territorial legislators passed laws in 1860, 1863, 1867, and 1872 creating county school systems giving officials control of the systems. It also defined the school session as running from November 1 to the last day of April. Parents were required to furnish the schoolbooks and supplies, and each child was to deliver one stick of wood to the schoolhouse per day, which was to be placed at the front door (Spivey 2001:64).

The 1872 school code laws authorized a poll and property tax to support each county school system. The school commissioners were also allowed to collect subscriptions from the wealthy citizens to pay for the schooling of the indigent county children (Getz 1997:14). The choice of using taxation to fund schools in New Mexico caused a plague of underfunding. A Territory could not use any public lands for education until the passage of the Morrill Land Act and Ferguson Act in 1890, which allowed for the designation of lands for public school, universities, hospitals, and other important state institutions.

The State Constitution ratified on November 21, 1911, recognized the multi-cultural history of the state. Children from a variety of ethnic populations in the state have rights of education protected in Article XII of the Constitution. These rights are reflected in two sections. Section 8 requires that teachers be proficient in English and Spanish so that they can teach all students. Section 10 protects the educational rights of children of Spanish descent (New Mexico State Assembly 1911:154, 155). These two provisions provided the framework for assimilation and education of the students that would make up the future workforce for many rural and mining communities like Lake Valley.

While celebrating a multi-cultural education system, the federal government continued to provide Indian Boarding Schools, and any provision for Native American inclusion in the state school system was ignored.

In Lake Valley, the Constitution created a system of education that was able to seamlessly blend the role of educators and community leaders with industry

standards. The school system fulfilled the promise of developing and reproducing an obedient and efficient workforce.

*Who Were the Students of Lake Valley?*

The Thomas Ingils family (Figure 10) is representative of the early families who had children educated at Lake Valley. The Ingils migrated from Scotland, seeking a better life in the United States. Thomas Ingils was a stockman, raising cattle on the plains south and east of Lake Valley. His children (Jane, Elizabeth, Jesse, Jamima, and Thomas Jr.) were first generation Americans and all natives of New Mexico. Much of the remaining student population was similar to the Ingils children. At the time of the Ingils arrival, some immigrants were coming from Mexico, fleeing the revolution and hard economic times in that country.

Figure 10 "Thomas Ingils Family," Henry Schmidt Pictorial Collection (PICT 000-179-0573), Center for Southwest Research, University Libraries, University of New Mexico.

Analysis of selected data from the 1885 Territorial Census through the 1930 United States Census can provide a significant amount of information about school-aged children at the Lake Valley schools. These dates are based on the years that the schoolhouses in Lake Valley were in operation (1889–1940). The information provided can answer questions such as growth patterns in student numbers, average attendance, the ability of both parents and children to speak English, the birthplace of the children and parents, and gender identity balance of students.

The Territorial Census of 1885 is the first data set available for Lake Valley (Appendix C, Table 7). This census lists six school-age children. This data is the only evidence showing the need for a schoolhouse to educate the children of Lake Valley. Before this time, most residents of Lake Valley were likely itinerant miners seeking their fortune.

The first families of miners and stockmen were immigrants from outside the Territory. The nationality of most students' parents (Figure 11), recorded on the Census reveals they were all immigrants from other states or nations, primarily Germany.

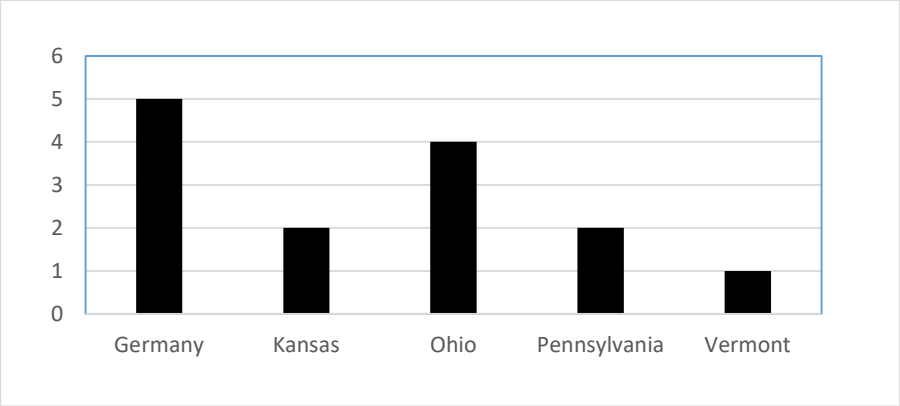


Figure 11 1885 Census, Parental Nationality

Most of the students arrived at Lake Valley from Missouri (Figure 12) and other Midwest states, except for the early pioneer family, the Sheads, who hailed from Pennsylvania. The children were most likely born in those states as the families moved to different locations for employment. What the census records fail to show is whether or not the children of these immigrants grew up speaking German or were bilingual, speaking German and English.

There are no records to illustrate the curriculum, or arrangement of space if a schoolhouse was used. An estimate of what the curriculum was can be made based on common needs of the community, which would be topics such as reading, writing, arithmetic, and history.

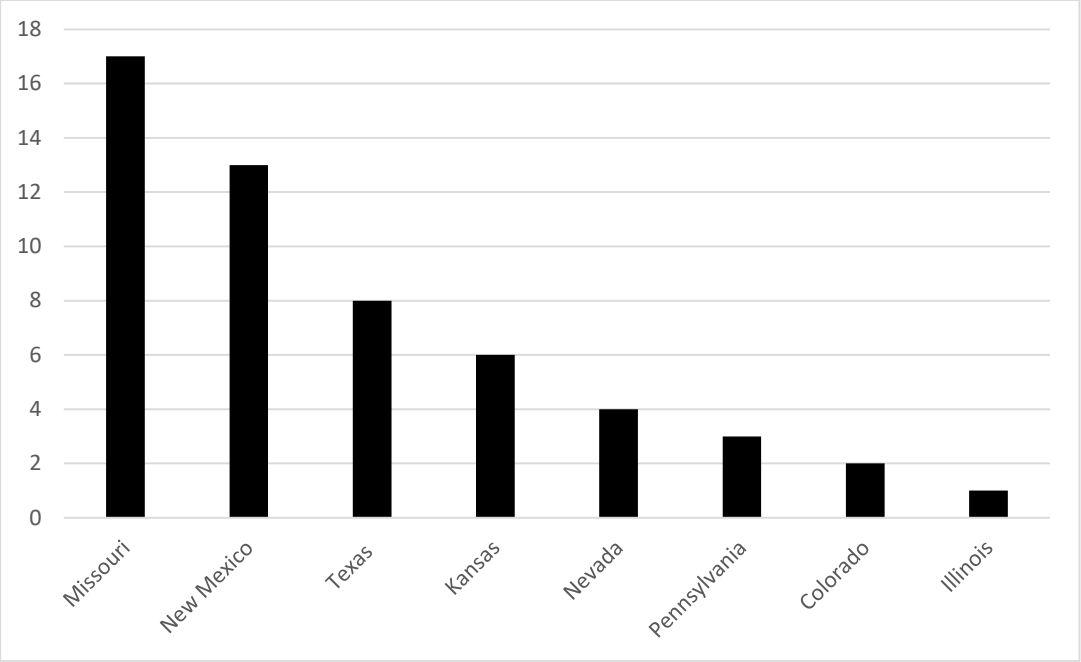


Figure 12 1885 Census, Children's Birth State

Data from the 1900 Territorial Census provides more information on the family backgrounds of the students at Lake Valley. In 1900, the student body was 24. Question twenty-one of the enumeration roll shows an average attendance of a child is three to ten months of the year. The 1900 Census was the first time the census enumeration form had a question about the ability to speak, read, and write English (Table 3).

Table 3
Can Speak English (Y/N)?

| **Response** | **Number** | **Percentage** |
|---|---|---|
| Yes | 16 | 67% |
| No | 0 | 0% |
| No Response | 8 | 33% |

Twenty-four of the students recorded responses. Sixteen students answered they could speak English and eight gave a “no response” answer. The parents of the children also reflected a change in immigration status. The majority of the parents had resided in Lake Valley long enough that their children were born in the area (Figure 13). The children born outside of New Mexico are evidence of growth and beginning of diversification of the industry of Lake Valley. Analysis of the occupations of the parents reflects this diversity with occupations listed as railroad worker, cattleman, stockman, and shepherd.

By 1910, the community’s view of the role of schools to create an efficient workforce made the school system adapt what was being taught to meet those demands. In 1895, the town experienced a fire that destroyed much of the downtown district (Ackerly and Stuedli 2004:2–66). The fire allowed the residents of Lake Valley to build a larger schoolhouse in a more prominent location. The new schoolhouse allowed a second teacher to be hired to provide better education to the students.

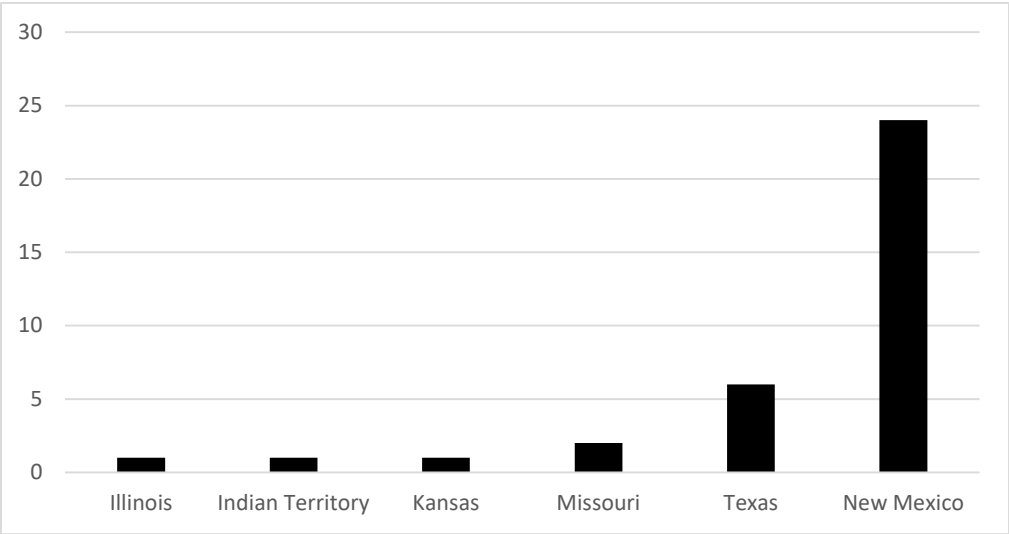

Figure 13 1900 Census - Student Birth Place

Statistical information from this enumeration roll shows that the population remained stable at 24, and the entire student body was born in Lake Valley. The 1910 Census asked if the members of the household were read and write English, and if they had attended school. All the school-age children answered yes to both questions. The gender imbalance was twelve girls and four boys, which can be explained by work expectations of the boys in family enterprises. Boys were often asked to help in spring cattle branding and fall round-up. Sheep had to move pastures at regular intervals. The 1920 census (Table 10) shows an interesting demographic change in both students and the town population. The student body at this time was 51. The demographics of the parents of school-age children (Figure 14) shows that a majority of immigrant population, 80% (33) compared to 20% (7) U.S. born. Most of the immigration came from Mexico. This change in demographics can be explained by the immigrants fleeing the Mexican Revolution, 1910–1920. Even with immigrant parents, most school-age children in Lake Valley had been born in New Mexico.

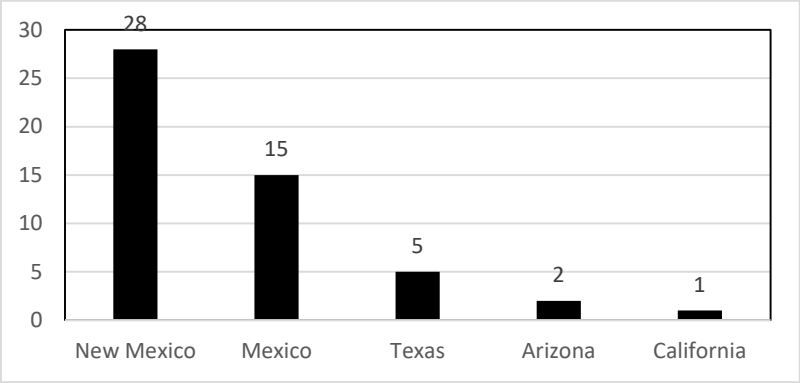


Figure 14 1920 Census Child's Birth Place

The 1910 census reveals no need for the instructors at Lake Valley to provide bilingual education (Table 4). There were 34 students and eleven responded that they spoke English at home, with one speaking Spanish. The missing 22 students did not provide a response to the question. By 1920, the number of students whose primary language was English had fallen to 18% (9 students) and Spanish speakers numbered 82% (42). The second gender identity was almost even with a male population of 23 and the female population of 31.

Table 4
Gender Balance and Language Spoken at Home from 1910 Census

| **Gender Identity** | | **Language Spoken at Home** | |
|---|---|---|---|
| Male | 22 | English | 11 |
| Female | 12 | Spanish | 1 |

The analysis of census records shows a variety of backgrounds that made up the student population of Lake Valley.

*Schoolhouse Locations*

The selection of a site for the schoolhouses in Lake Valley contributes to the education of children to mold them into an efficient workforce. Structural Functionalism (Table 1) emphasizes that education is accomplished through socialization of the student's education and transmitting the shared values, norms, and beliefs of a community. The selection of the site where a schoolhouse is located in a town can also aide in creating social solidarity. The social value of education in a town is also indicated by the selection of a site. Barnard's Educational Structures

Model stresses that the site of a school should be in a location that is quiet and healthy. It should be the nicest location as possible since it is where the most lasting and controlling association of a child's mind are formed (Barnard 1850:40).

Examining the life cycle of each building creates a history of the Lake Valley school system. According to the HABS/HAER report, the first structure to be used as a schoolhouse was built in 1883 (Browning 1991:G-165). The 1893 Sanborn Fire Insurance Map of Lake Valley (Figure 15) shows the town is divided into two sections. The northern part of town is the industrial complex. There is a hill that divides the schoolhouse from the industrial area. The hill is also where the train siding runs that provided service to the stamp mills.

*1893 Schoolhouse*

The 1893 schoolhouse appears to have been one of the first structures built in the town, and probably one of the most substantial. It was not originally built as a schoolhouse, but is an excellent example of repurposing a structure (Browning 1991: G-165).

As Barnard's Educational Structures Model (Barnard 1850:40) points out, a schoolhouse should have a pleasant and healthy location. It is apparent from the decision to place the first schoolhouse building in this location is that the community chose both an expedient location and one that allowed visitors and community members alike to understand that the town valued education. It can also be seen as a psychological statement that Lake Valley was more than a transitory community of

miners. By selecting the most substantial building in Lake Valley to house the school, the community was stating that it was an up-and-coming location to come and settle.

While the schoolhouse was the most substantial in town, it certainly was not in the most pleasant and healthy location. As seen in Figure 16, the hill behind the schoolhouse is the location of the stamp mills and a rail spur.

A stamp mill is not the most healthy neighbor for a schoolhouse setting. The noise and pollution would be disruptive to learning. It also could cause health issues for students playing outside, because of the dust and pollution being kicked up. There is a second disadvantage to the location of the schoolhouse. It is in the central business district, across the street from the Grand Central Hotel. It was also south of the saloon and billiards hall.

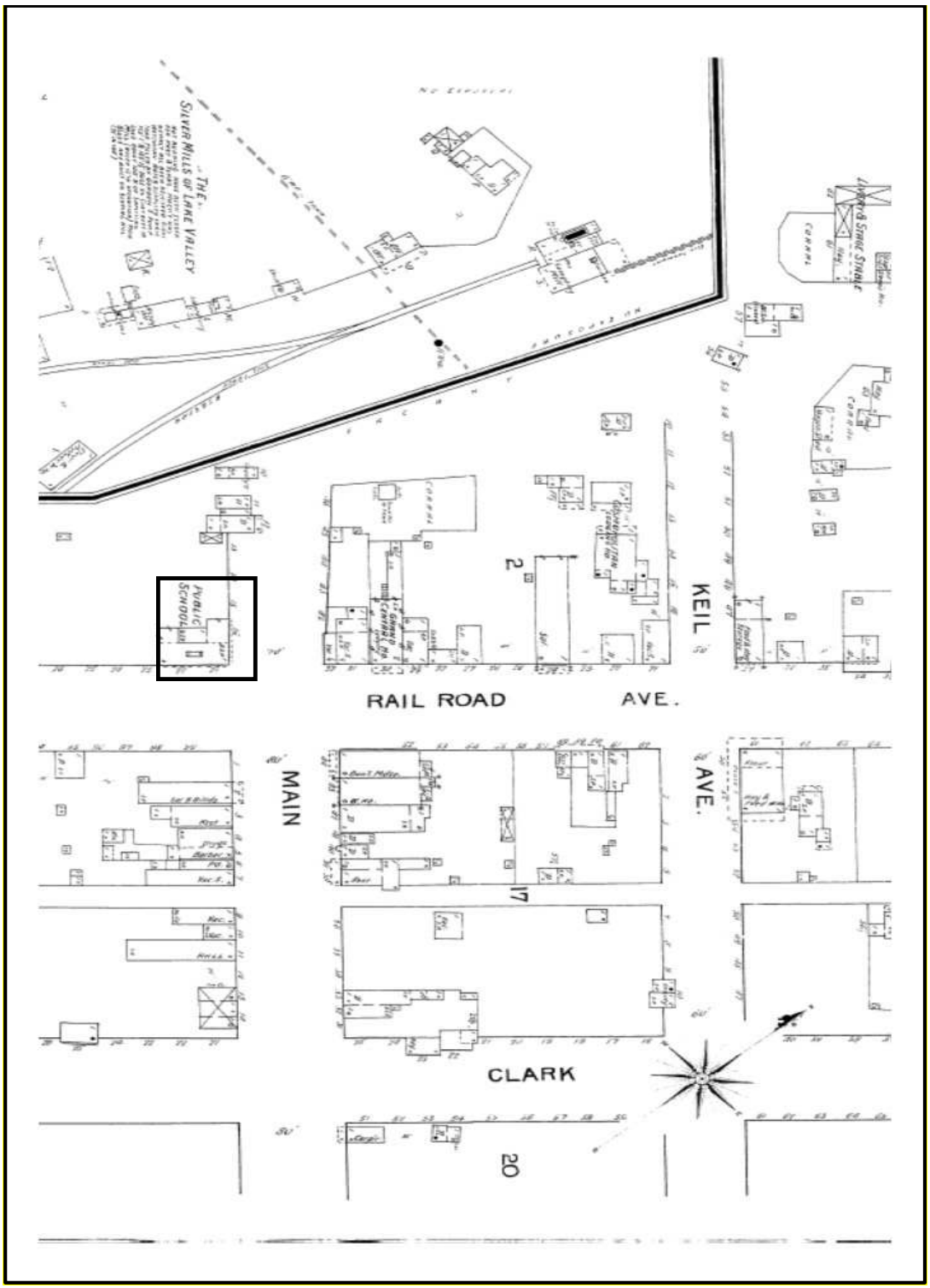


Figure 15 1893 Sanborn Map of Lake Valley (schoolhouse indicated in box). Environmental Data Resources, Inc. 2013:on-line

Figure 16 The 1893 Schoolhouse. Hill behind the building hides the stamp mills with rail spur on top of the hill (Photo by Author, 2016)

The location did prove to be accessible to all the neighborhoods of the town. As stated earlier, Lake Valley was separated into distinct ethnic neighborhoods; to the southeast was the part of town where the majority of white residents lived. To the west was the Mexican neighborhood called Chihuahuita.

In June 1895, a devastating fire broke out which consumed most of the business district and almost one-half of the housing in town. For a time, the 1983 schoolhouse was one of the few buildings that remained standing. As the town began rebuilding, it was decided to build a new schoolhouse. The selection of the site for a second schoolhouse gave the perception that education in Lake Valley School held an even more prominent position in the community.

*1904 Schoolhouse*

The 1902 Sanborn map shows that much of Lake Valley was never rebuilt after the fire (Figure 17). Near the corner of Clark Street and Keil Avenue, a perfect site for a new school building was found. On the map, it is the lot in between the T-shaped building on lots 62 and 63.

In 1904–05 on the Fourth of July, the community held a fundraiser that raised funds for the construction of an adobe schoolhouse (Browning 1992:G-116). The 1904 schoolhouse served as a schoolhouse until consolidation in 1940 closed the school.

The new school site is at the top of a rise and approaching Lake Valley from Highway 27 is the first structure visible (Figure 18). In 1904 when a visitor approached by road or by railway they would have a similar view. The choice of site served two purposes. First, the creation of a large public structure gave a psychological lift to the community showing resolve and a sense of permanence in the face of adversity. The second reason that this site was most likely chosen was the community once again demonstrating the importance of education in the community. Lake Valley valued education and the role of education in creating an efficient workforce from their children.

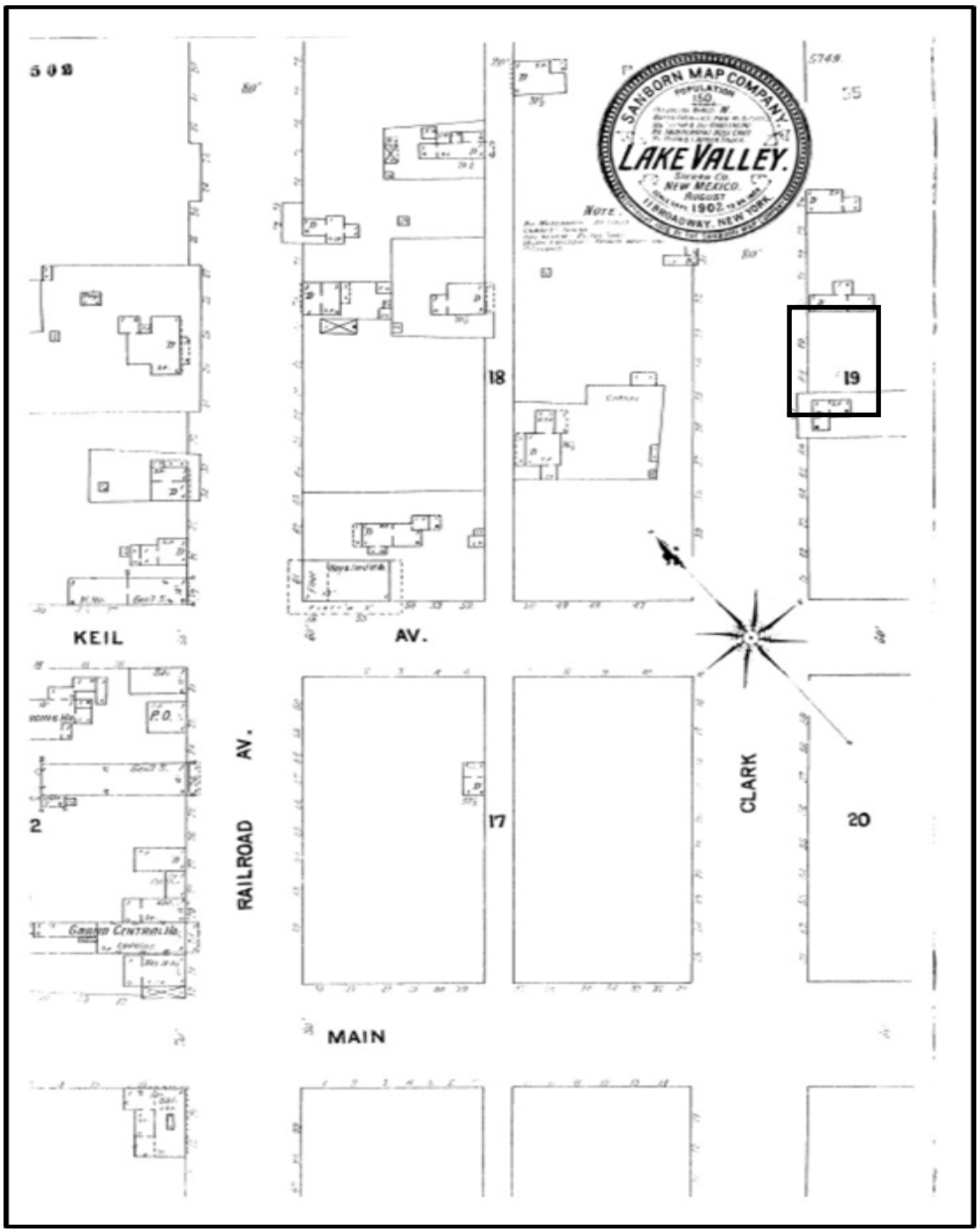


Figure 17 1902 Sanborn Map of Lake Valley (site selected for construction of schoolhouse indicated in box). Environmental Data Resources, Inc. 2013:on-line

Figure 18 1904 Schoolhouse with adaptations (Photo by Author, 2016)

*Reflections from a Marxist Perspective*

A Marxist perspective on the role of education in a capitalistic society provides insight into the decisions made about where the schoolhouse buildings at Lake Valley were placed. The shared responsibility of transforming students into an obedient and efficient workforce could be unconsciously transmitted by showing the importance of education and the responsibility that a student in the community. One of the roles of education in a community is to express a commitment to shaping the student and how they function in society.

The site selection of the 1893 and 1904 schoolhouses in Lake Valley reflects the cultural, political views, rituals, and the role of genders in Lake Valley (Rotman 2003:7). Choosing to place the first school in one of the most substantial buildings in Lake Valley, the community placed value on the role of education to help build a capitalist culture. Althusser (1971:9) wrote that ideology, such as capitalism, is a just and reasonable concept that can be transmitted through education. This belief that could be taught to students could make them an important contributor to the mining industry.

Although the fire destroyed the town, the community was able to expand the role of education by placing the second school building in an even more prominent location. By building the schoolhouse on a high point in town, the community was transmitting to themselves and any outside visitor that the role of education and the creation of an educated workforce helped perpetuate the good fortunes of the community. The Fourth of July fundraiser by the community to aid in financing construction of a new school shows what can come from an engaged community in developing a workforce in a capitalistic society.

The principle of the hard work involved in fundraising to build a new educational institution demonstrates social reproduction of the community and educational society. This principle uses social interaction and individual rewards to replicate the environment of the workplace. Bowles and Gintis call this the correspondence principle (2001:1). What is focused on is not what is explicitly taught

in the schoolhouse, but on the socialization of students through the structure of the school experience.

The following analysis seeks to understand the arrangement of space and adaptation of the 1893 and 1904 schoolhouses to create an atmosphere of learning. The theoretical basis of this discussion is the Site Formation Process Model (Beisaw and Gibb 2009:55).

# CHAPTER 6
# STRUCTURAL ANALYSIS

This chapter will discuss the formation processes of the two schoolhouses at Lake Valley. Both schoolhouses provide the site formation process for the entire history of the education system for analysis. One of my research goals is to understand how the location of the schoolhouses served the community to create an effective workforce. Another goal of my research is to understand the decisions made in choosing the schoolroom layout and remodeling of the 1893 schoolhouse, and floorplan of the 1904 schoolhouse to make it easier to educate the children of Lake Valley to create a more efficient workforce for the town. This chapter is divided into three sections covering structural analysis.

The first section applies the Site Formation Process Model (Beisaw and Gibb 2009:55) and the Educational Structure Model (Barnard 1850:9) to the 1893 schoolhouse. The second section of the chapter will then apply the same models to the 1904 schoolhouse. Both sections will discuss the expected deposition of materials to see if they are present and show the key process of the model. The schoolhouses will be examined to see if they follow the patterns prescribed by Barnard's model. This model should show any adaptation of the model for local standards. The last section of this chapter will examine comparative examples of schoolhouses in New Mexico that have been preserved and documented on the State or National Registers.

*Application of the Site Formation Model*

Applying the Site Formation Model (Beisaw and Gibb 2009:55) shows that each schoolhouse in Lake Valley demonstrates a clear life cycle. There are two key processes of the model (Table 2, page 18) that make up the life cycle of the 1893 schoolhouse. The first process is architectural modification which includes renovating an existing structure for use as a schoolhouse. The second process is abandonment as a schoolhouse by 1904. The process of renovation occurred two more times as the structure was renovated to become a saloon and a Conoco gas station. The second process is abandonment.

*Life Cycle of the 1893 Schoolhouse*

Figure 19 shows the first building to be used as a schoolhouse for the Lake Valley School system. This structure was one of the first buildings at Lake Valley and was remodeled for use as a schoolhouse in 1893 (Browning 1991:6–165).

Figure 19 1893 Schoolhouse Lake Valley, Eastern Exposure. (Photo by Author, 2016)

Construction consists of a cement foundation and wet stacked stone. There are two wings projecting on the northwest side of the building to form a U-shape (Figure 22). The floors are of wood and concrete, with finished plaster walls. The building had three rooms consisting of classroom space, an office, and perhaps a residence for the teacher.

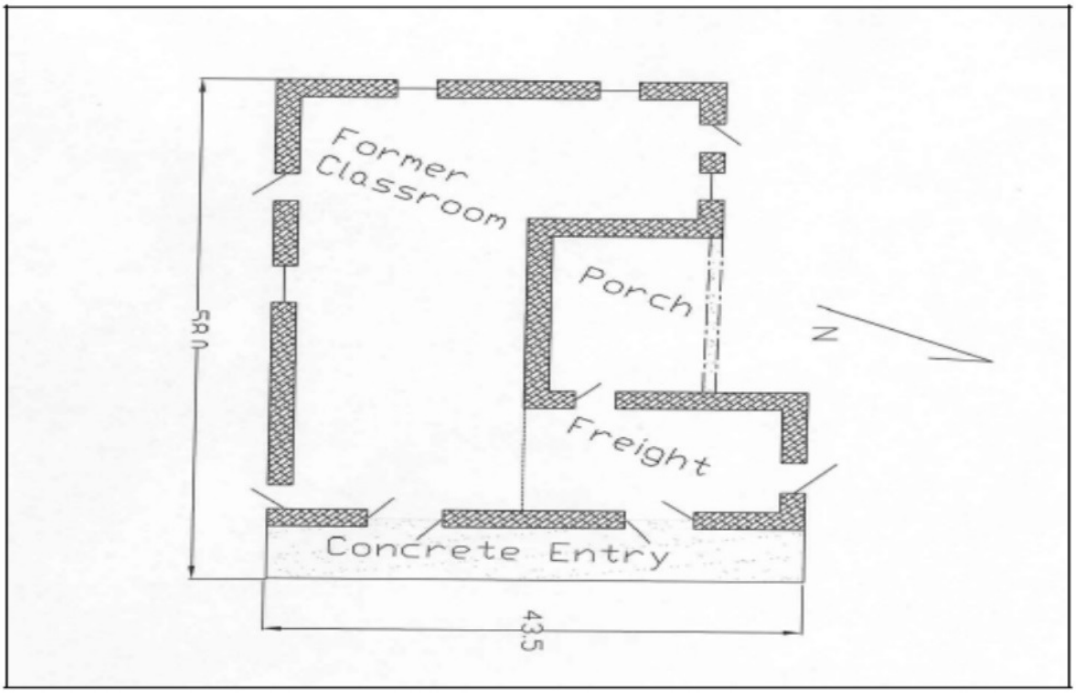


Figure 20 Interior Floor Plan of 1893 Schoolhouse (Ackerly 2004:6-8)

The 1893 schoolhouse followed Barnard's model for a building that accommodates 48 students. The floor plan was adapted somewhat to fit the outline of the building (Figure 21). The key process of architectural modification is seen in adapting Bernard's model to fit into the footprint of an existing structure. The east end of the building is a good location for the instructor's platform and desk. The

students were in three rows to the south. The south wing has the option of functioning as a school library or office for the teacher. This figure also shows that windows should be spaced at regular intervals to allow for good ventilation and light for students.

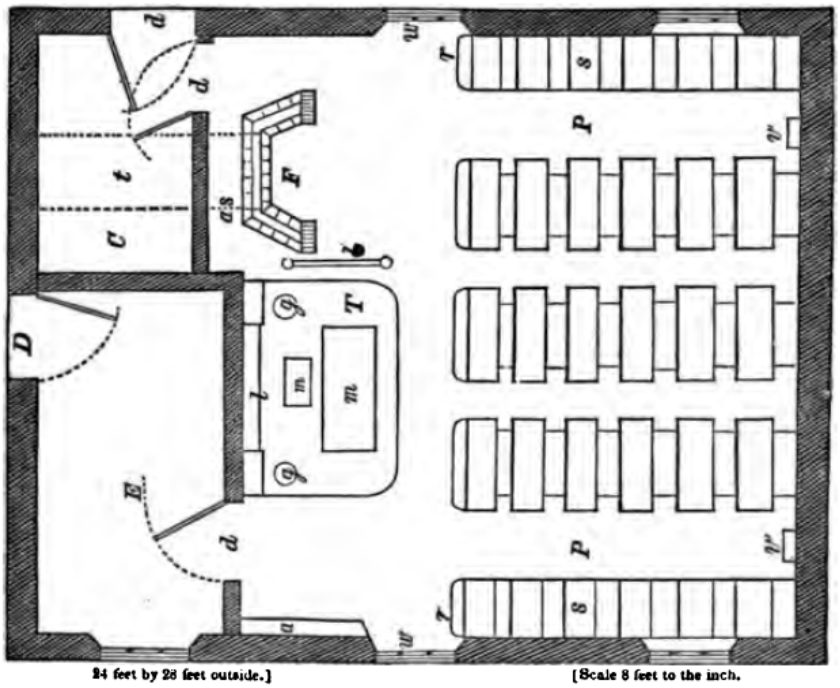


Figure 21 Barnard Model Schoolhouse for 45 Students (Barnard 1854:72)

Figures 22 and 23 show the exterior of the schoolhouse where windows were present. Architectural modification after its use as a schoolhouse bricked up the windows. These architectural modifications were to adapt the structure for use as a gas station, the gas pumps are similar to those in use in the 1920s (Figure 24).


Figure 22 South View of Remodeling/Adaptation of Schoolhouse (Photo by Author, 2016)

Figure 23 South View of 1893 Schoolhouse Showing Blocked Windows (Photo by Author, 2016)


Figure 24 1893 Schoolhouse showing reuse as a gas station. Note the Addition of the Ventilation Cupola on the center of the roof. Phot originally published in *Ghost Towns and Mining Camps of New Mexico,* by James E. Sherman and Barbara H. Sherman. Copyright © 1975 University of Oklahoma Press. Reprinted by permission of the publisher.

A close up of the 1893 Sanborn Map shows the location of the schoolhouse (Figure 25). The schoolhouse was located on the corner of Main and Railroad Avenues. The solid black line on the left is the boundary of the industrial site (mining operations) of Lake Valley. The edge of the stamp mill and railroad siding are on the map. There are two reasons that the schoolhouse was located here. The first was the expediency of remodeling an existing building. The second was the psychological impact of using one of the most substantial buildings in town for education. It creates an image of the important role that education plays in creating an efficient workforce

for the mining industry in Lake Valley. It is also close to the railroad siding so any visitors would see the building.

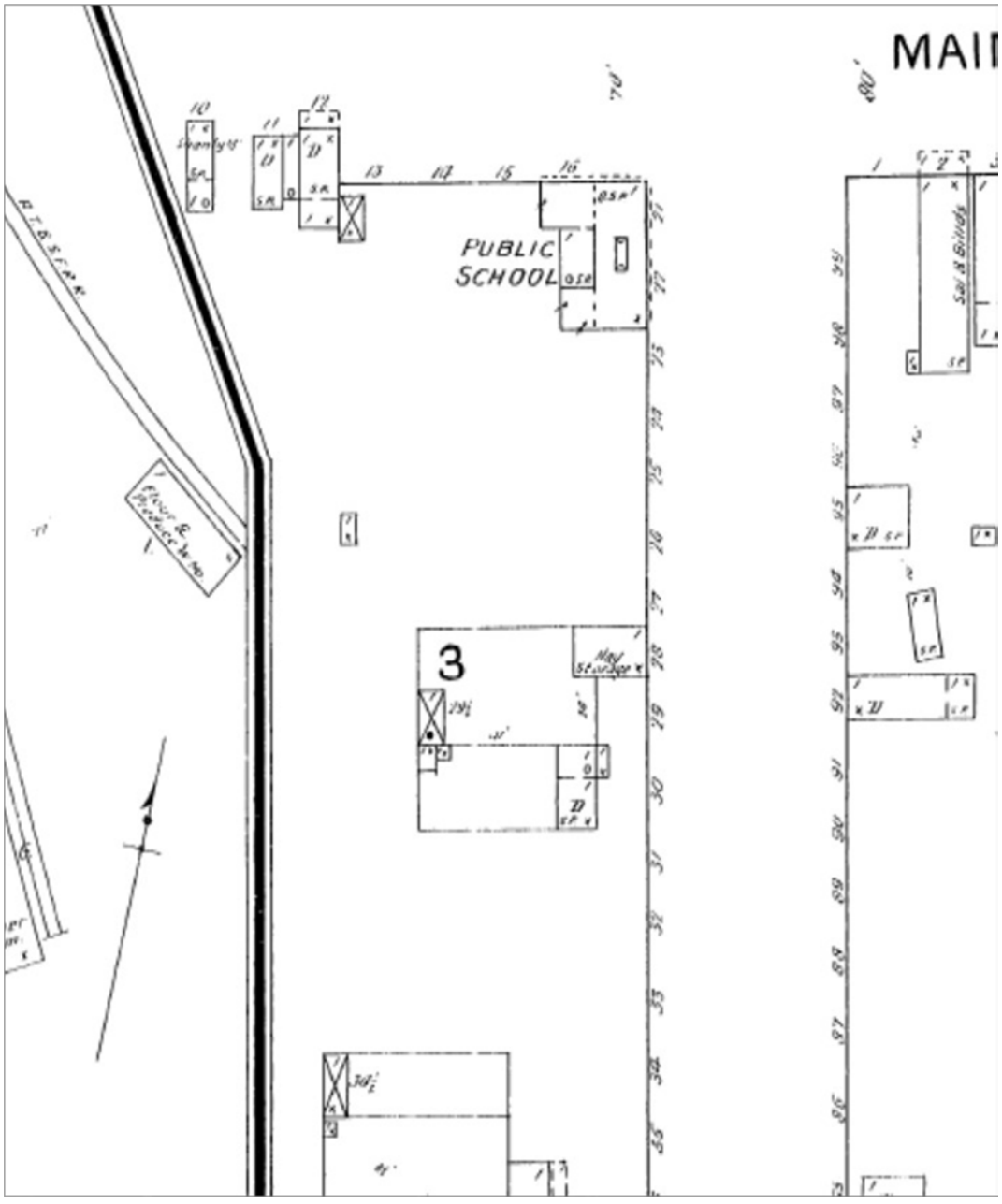


Figure 25 Site Location of 1893 Schoolhouse. Environmental Data Resources, Inc. 2013:on-line)

The first period of abandonment occurs between the fire of 1895 and the publication of the 1902 Sanborn Fire Map. The 1902 Sanborn Fire map shows that the schoolhouse was functioning as a saloon. The process of adaptation of the building includes closing the windows on the south side of the building and the addition of storage space. The center of the U in the U-shaped building was filled in with the addition of a concrete and adobe stucco structure. This blocks access to the courtyard and covered another original window for additional light in the classroom. (Figure 26). The 1902 Sanborn Map also shows the addition of a dormer to the center of the roof for ventilation.

Figure 26 1893 Schoolhouse North Side of Structure (Photo by Author, 2016)

*Life Cycle of the 1904 Schoolhouse*

After the fire in 1895 that destroyed much of Lake Valley, the decision to build a second schoolhouse was made. The location is farther away from the

industrial section of Lake Valley and is on a hill overlooking the town. It is also the first structure seen when approaching the town from Highway 27. The southern portion of the schoolhouse (Figure 27) was built in 1904 and classes commenced fall 1904.

Figure 27 1904 Schoolhouse, Lake Valley, NM. (Photo by author, 2016)

The building was designed in the New Mexico vernacular style. It has a stone foundation with a crawl space. The walls are of adobe with a stucco finish. The windows are original to the structure in a six over one light formation (six panes of glass on the top sash, and one pane on the bottom). It also has a tin roof (Browning 1991:G-117). Both the stucco and roof have been replaced. The interior of the building is finished with oak floors. The walls are plaster and lathe with a horse hair plaster applied as a finish. The windows are original to the building.

When the initial construction was complete, all useful equipment and materials was moved to the new building. Budgets in rural communities very rarely allowed for the purchase of new materials and furnishings. This is an example of the key process of reuse in the Site Formation Process Model (Beisaw and Gibb 2009:55).

Barnard's Educational Structures Model (1850:9) was used in planning the classroom space in the 1904 schoolhouse. The classroom arrangement selected was for 65 students (Figure 28). The classroom size and arrangement allows the teacher to use a variety of instructional methods.

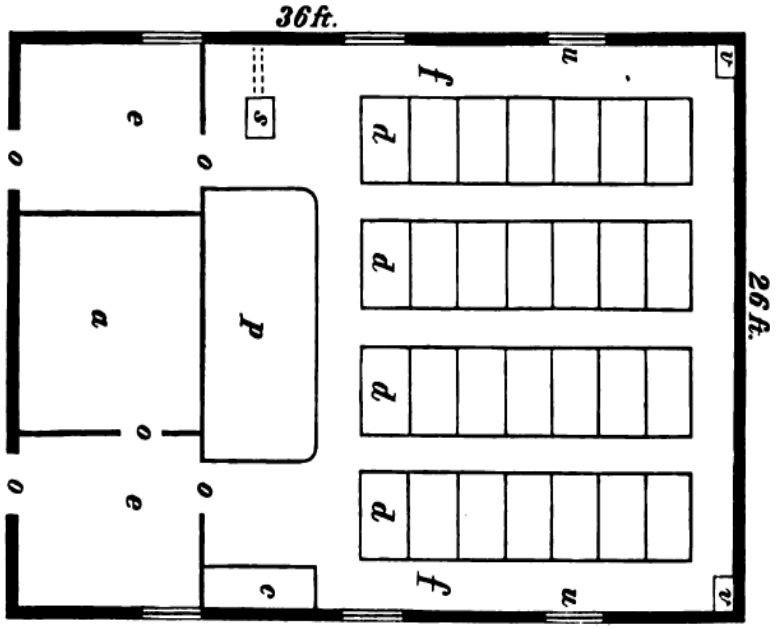


Figure 28 Model Classroom for 65 Students (Barnard 1854:78)

The initial design and layout of the school also exhibits the traits of Marxist theory that a classroom must be suitable for the creation of a good workforce. The elevation of the instructors' platform on the south end of the building arranges the room in a

hierarchical manner. This arrangement establishes the teacher as a central figure of authority. The desks arranged in rows allows for the arrangement of younger students being near the front, with older students behind allowing some freedom for studying at their own pace. This reflects the ordered workforce of a shop steward, manager, and other regulatory positions (Figure 29).

Figure 29 Interior 1904 Schoolhouse (Photo by author, 2016)

Beginning with the 1900 census, the school population began to expand from 24 students to 51 in 1920. The constant growth in student body meant that two teachers were hired. The expansion of the student body and hiring of new teachers allowed them to employ the *Fücher* system of instruction, with each teacher specializing in individual subjects or grade levels (Barnard 1851:79).

In 1920 an expansion project began. This expansion included a north wing of the building, a new entry (Figure 30). The interior of the schoolhouse would remain without change until the closure in 1940. The last expansion was the addition of a bell

tower in 1924 (Figure 31). The schoolhouse also became a K-9 school with the high school students being bused to Hillsboro, New Mexico, to attend high school (Browning 1995:59).


Figure 30 1904 Schoolhouse Expansion Project (Photo by Author, 2016)

Figure 31 1924 New Entry and Bell Cupola (Photo by Author, 2016)

As a part of the progress of educational administration in the State of New Mexico, the Department of Education published “Plans and Suggestions for New Mexico Rural School Buildings” (Wagner 1920). This book contains various blue prints and materials lists for schools that should be built throughout New Mexico. Some of the blue prints are for large schools, some for rural schools. All the blue prints are adaptable to various economies of the town or for the student ratio. The 1920 expansion at Lake Valley uses *The Alabama Plan* (Wagner 1920:14).

Figure 32 shows the recommended blueprint for the expansion of the 1904 schoolhouse in Lake Valley. The line drawing of the school building follow

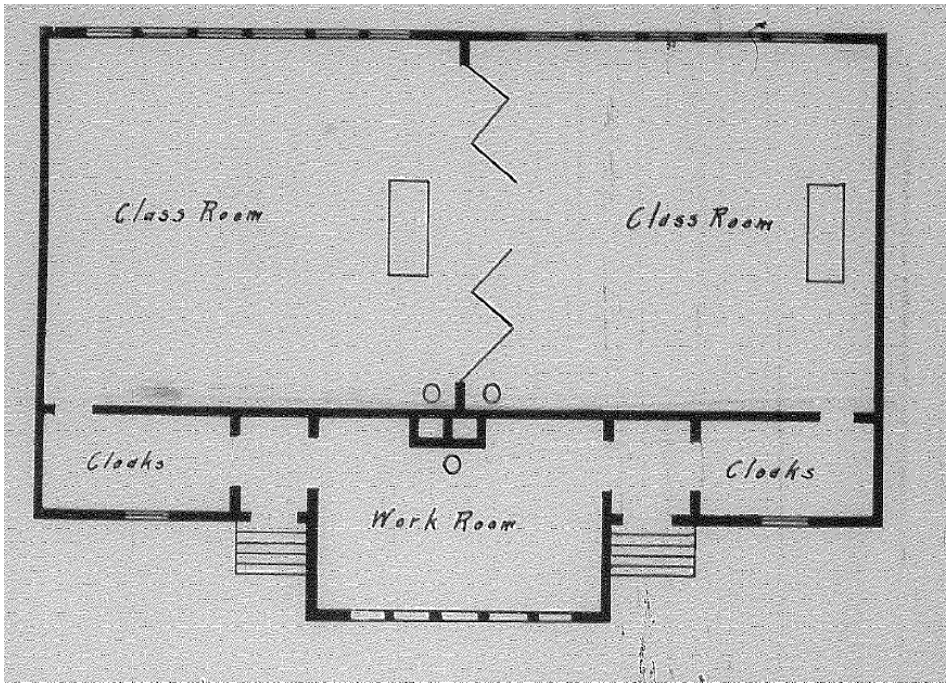


Figure 32 The Alabama Plan for Two Room Schoolhouse. (Wagoner 1920:14)

Barnard's suggestions on the arrangement of space. Similar to Barnard's model, Wagner felt that buildings should be a space designed for children. The building should provide for teaching several subjects, and a library for growth in the students reading abilities and to excite attendance (Wagner 1920:2). These instructions go on to include recommendations for plenty of blackboard and bulletin board space for posting lessons, and storage space for the students' personal items. These instructions continue the concepts that Bernard introduced in his model about the proper use of play space and educational materials needed for successful teaching.

Figure 33 shows the change of space for the 1904 schoolhouse after being remodeled. Local adaptation of the space allows the classroom to be used in a wider

variety of applications. The teacher's platform could be used for class presentations and plays during various holiday seasons and commencement activities.

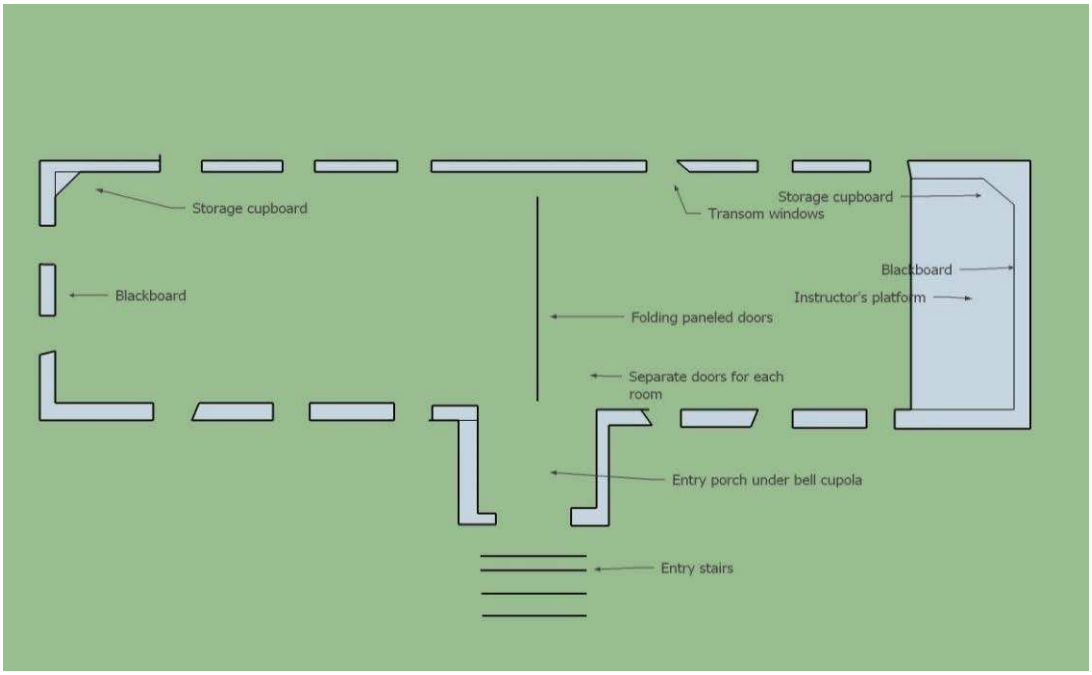


Figure 33 The Enlarged 1904 Schoolhouse Showing Space Allocation (Drawing the Author, 2016)

*Comparison of Historic Schoolhouses in New Mexico*

There are 52 historic schoolhouses listed in the New Mexico and National Registers (Appendix A). Two rural schoolhouses in northern New Mexico can provide comparison sites to the 1893 and 1904 schoolhouses in Lake Valley (Figure 34). The Red River Schoolhouse in Red River, Taos County, is a schoolhouse that is an example of the key processes of construction, rebuilding and reuse of the Site Formation Process Model (Beisaw and Gibb 2009:55). The second example is the Carson Schoolhouse in Carson, Taos County. The key processes of rebuilding and concurrent use of the Site Formation Model is in evidence at this schoolhouse.
The Red River Schoolhouse in Taos County is a good comparison structure to the schoolhouses in Lake Valley, since they both had the key processes of rebuilding and reuse of the Site Formation Process Model (Figure 35). Red River was a community that started as part of the short-lived mining industry in the Red River area of New Mexico. The schoolhouse was built in 1895, soon after the founding of the town. The construction date is comparable to selecting the first schoolhouse location at Lake Valley in 1893. Local legend says that the land and labor were provided by the citizens of the local community. The principal carpenter was Ed Wheatcroft of Manassa, Colorado (National Park Service n.d.:2). The rebuilding process began in July 1914, after a fire destroyed the first structure. The design of the building is similar to Design No. 2 in the "Plans and Suggestions for New Mexico Rural School Buildings" (Wagner 1920). The schoolhouse illustrates the key process of concurrent use. The National Nomination form lists the various uses as a church and dancehall,

which hosted weekly square dances with a live band (National Park Service n.d.:3). The Red River Schoolhouse ceased to function as a schoolhouse in 1942 (National Park Service n.d.:3).

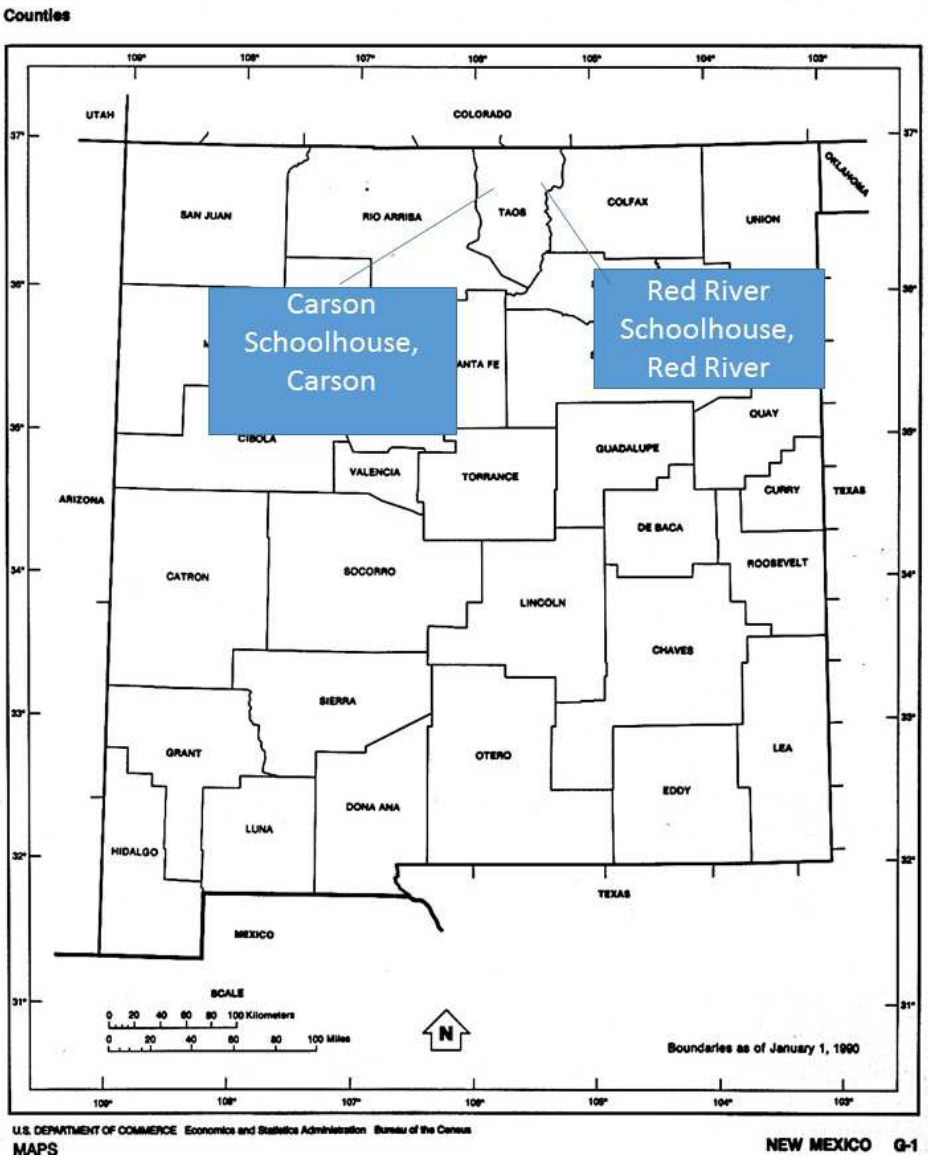


Figure 34 Location of Comparison Schoolhouses in New Mexico (Map by Author, 2016)

Figure 35 Red River Schoolhouse, Taos County NM (National of Historic Places Nomination Form. Pg. 5)

The second example of comparable historic schoolhouses in New Mexico is the Carson Schoolhouse in Carson, New Mexico (Figure 36). It demonstrates the key processes of the Site Formation Process Model of rebuilding, remodeling, reuse, and consolidation (Table 2, page 18). The Carson schoolhouse was built by a local stone mason, Mr. Willis. The land was sold to the Carson School District for one dollar by land owners William and Mattir Shupe (Perry 1986:2). The school was a replacement for a wooden structure that stood near the site that was built in 1912.

The key process of remodeling the one-room school began soon after the construction was complete (Figure 37).

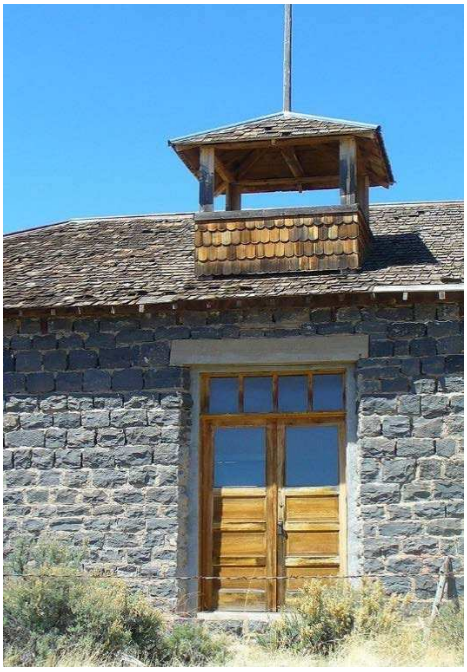

Figure 36 Carson Schoolhouse Entrance (Photograph Kathy Perry 1986)

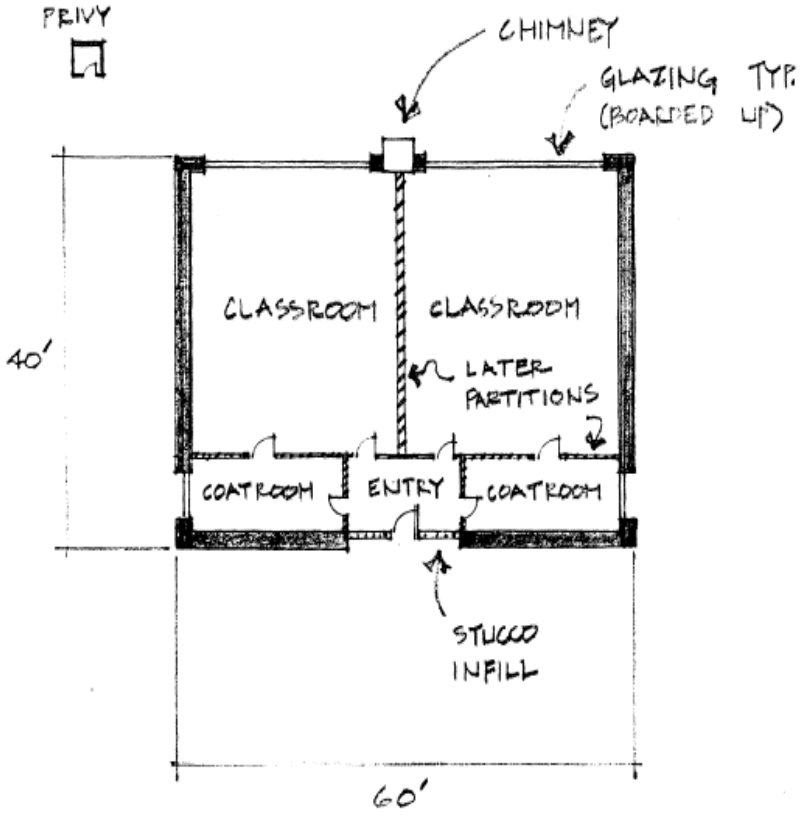

Figure 37 Floor Plan of Carson Schoolhouse (Perry 1986:5)

A partition wall was added at the entry way to create two classrooms, and a second coatroom was added to the new space. The schoolhouse doubled as a space for Mormon Church services. This concurrent use lasted until 1932 when the Carson School System consolidated with Ojo Caliente Independent School District. Concurrent use did continue as residents of Carson leased the structure for dances, potluck dinners, and country fairs (Perry 1986:3).

# CHAPTER 7
# MATERIAL CULTURAL ANALYSIS

This chapter is a discussion of the material culture that exists in the 1904 schoolhouse (Appendix B is a partial inventory of schoolhouse related items). This first topic of discussion will identify the material culture assemblage of furniture, books, curriculum, and schoolwork. The next topic will discuss the relationship that a community and school had with each other. The third topic of discussion will be the use of the material culture to model gender identity roles for boys and girls. The final topic will be about how the arrangement space and classroom activities supports Bernard's Educational Structures model.

After the closure of the 1904 schoolhouse, the material culture such as desks, textbooks, maps and inkwells and some student work were left in the structure. These material remains have become the collection of the BLM-managed museum housed in the building. Most of the collection is original to the building, donated by former students, or found in trash piles around the Lake Valley townsite.

## *Basic School Materials*

The arrangement of the furnishings in the south classroom of the 1904 schoolhouse appears the same as it would have when the building was used as a school (Figure 38). The 24 student desks are from the 1922 period. Markings on the desk leg are from the Haney School Furniture Company. The patent date for this style of desk is 1922 (Grand Rapids Historical Commission 2016).

Figure 38 Desk Support Leg. Haney School Furniture Company. (Photo by author, 2016)

The original school bell is sitting near the entrance to the schoolhouse (Figure 39). The bell was removed from the tower due to structural weaknesses. The school bell represents power in the tower. The teacher had control over how the bell was used. It could signal the students every morning to start class, or to begin and end the recess periods. Both uses are similar to the use of bells in the mine settings to ring the beginning of shifts and lunch periods. It also could be used to call and inform the community of events beginning that would provide them with education, information, and entertainment.

Figure 39 Schoolhouse Bell, Cast in 1921. (Photo by author, 2016)

Figure 40 South classroom space (Photo by Author, 2016)

The south end of the schoolhouse (Figure 40) shows central work tables that could have served for art, crafts, or sewing tables for students. The inkwell is an example of writing materials that the students would have used (Figure 41).

Figure 41 Inkwell Found Near 1893 Schoolhouse. (Photo by Author, 2016)

This inkwell is most likely from the teacher's desk. The student's desk do not have holes for inkwells.

*Textbooks and Library Materials*

Books found in the school can be divided into two categories. The first are the textbooks that were used in daily instruction. The second is the library collection for students to use for additional reading.

The textbooks found in the collection touch on the expected common topics such as English, history, mathematics, and reading. Reading for the younger students was the M*cGuffey's Eclectic Reader* (Figure 42). The older students (4th, 5th, and 6th Grade) used the *Riverside Literature Series.* These two series were used in the 1893 schoolhouse and the 1904 schoolhouse.


Figure 42 McGuffey Readers, Lake Valley Museum. (Photo by Author, 2016)

There are several textbooks in the collection that serve as excellent examples of topics used to prepare Lake Valley students to become an efficient workforce. A textbook *The Romance of Modern Chemistry* by James Phillip (Table 6, page 112) prepares students who are entering the mining industry giving them the knowledge to work in the laboratories testing the purity of ore samples.

For those students who were entering the workforce in town as a store clerk, or working in the various shipping agencies that supplied towns in the foothills of the Gila Mountains, *The Triangle Mathematics* (Figure 43) taught several methods of multiplication and bookkeeping. For students who were preparing for the cattle, sheep or goat industry, the school also used General Zoology as a school subject.

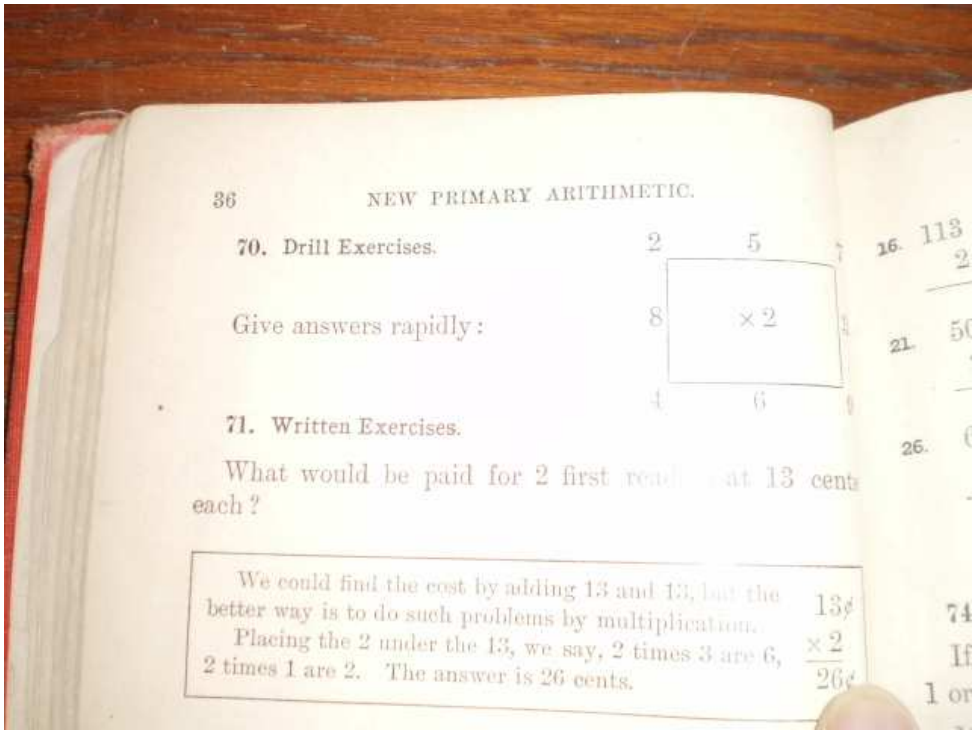


Figure 43 The Triangle Mathematics, Pg. 36, Lake Valley Museum. (Photo by author, 2016)

The history of New Mexico was taught, in addition to the general U.S. and world history. The contributions of other cultural identities in New Mexico history was also used. A copy of the Winterburton text *The Spanish in the Southwest* (Table 6, page 112) was found. Since the students at Lake Valley were predominately English speaking, this was the closest to multi-cultural education they would receive.

*The Community and The Citizen* by Arthur Dunn is the textbook assigned for civics lessons (Figure 44). The topics addressed in the book are lessons on how to become a good citizen through being inclusive, pluralistic, and active participants (Carpenter 2011:67). The subjects discuss how a student should behave in society and the roles that every citizen has in contributing to a better country. This lesson is

valuable to students from a practical standpoint in that New Mexico was working toward statehood (1912).

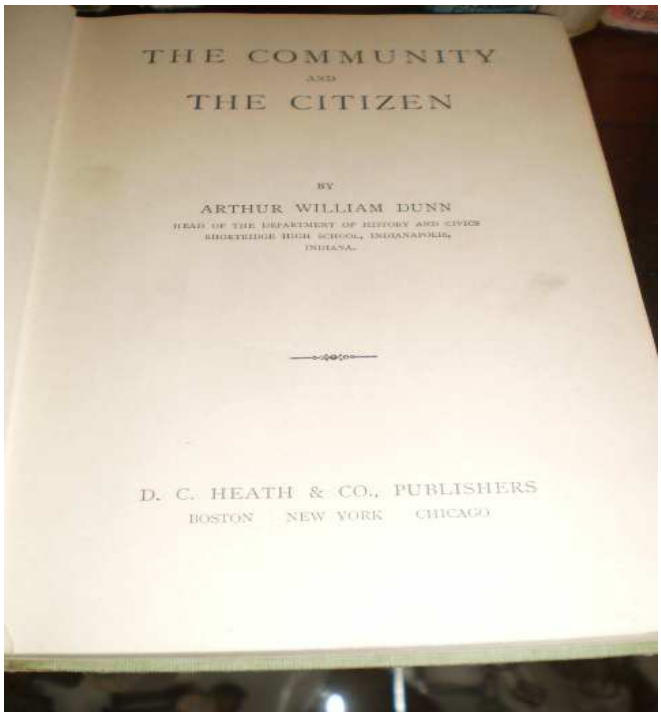


Figure 44 "The Community and The Citizen." Arthur William Dunn. (Photo by Author, 2016)

The schoolhouse had a reading library to compliment assigned readings. Included in this collection were other classic readers for students to expand their knowledge of literature. Some of these were classics, such as James Fennimore Cooper's "The Last of the Mohicans," and fables of the local area such as the "Wild Man of the West."

In many rural communities, the schoolhouses of the nineteenth and early twentieth century were much more than an institution of learning. Teachers often lived within walking distance of a school or were boarders with families who acted as surrogate parents (Ponce 1995:85). In the case of the schoolhouses of Lake Valley, all

the schoolteachers were children of prominent leaders of the community and were already in a position to have greater influence in the community life. One teacher was married to the town's physician. They were the center of social, political, dramatic, and often religious activities of the community (Guilford 1996:76; Rotuman 2003:5; Tyack 1974:15).

There is a third set of materials in the schoolhouse that show how much the community was involved in the life of the schoolhouse. The community was invited to the building to celebrate major holidays with the students. There is a well-worn copy of *The White Christmas and Other Merry Christmas Plays* by Hare Denison. This library book contains scripts for schools and communities to celebrate Christmas together. Figure 45 is a copy of the 1920 8th Grade Commencement Program at Lake Valley. It is another example of community involvement in the 1904 schoolhouse.

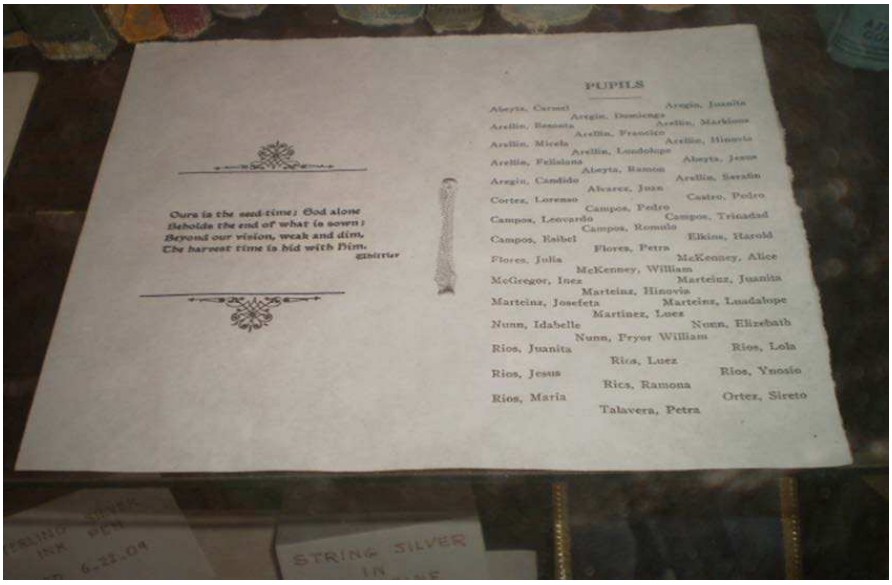


Figure 45 Inside of 1920 8th Grade Commencement Program for Lake Valley (Photo by author, 2016)

*Material Culture and Gender Roles*

Bowles and Gintis' Correspondence Principle (2001:1) explains that social norms and values are reproduced through teaching rituals and lessons to define a person's role. One area where social reproduction in the classroom can be identified is the imposition of gender roles.

Rural schoolhouses were often one of the few social institutions that reflected and shaped a sense of community. These views can be found in the material remains of the schoolhouse. These material remains can explain how gender identity roles and the rituals and lessons that defined them.

"The American Boys' Workshop" is one example that teaches gender roles for boys (Figure 46). This book is an instruction manual for boys. The topics covered taught a boy how to select tools and materials needed to have a complete workshop for the home. There is more evidence on how girls were instructed to become the perfect housewife and fulfill the perfect role in the house.

Young girls in the school were given instruction pictures to color and learned the accompanying songs that reinforce domestic skills. Figure 47 is a coloring poster of a young girl engaged in housework. There are five posters in this series of activities. The modeling of the typical female is illustrated by showing the daily tasks that a girl should engage in to be a part of the efficient workforce by supporting the men. It is an example of the teaching methods used to reinforce the female gender roles of the early part of the century.

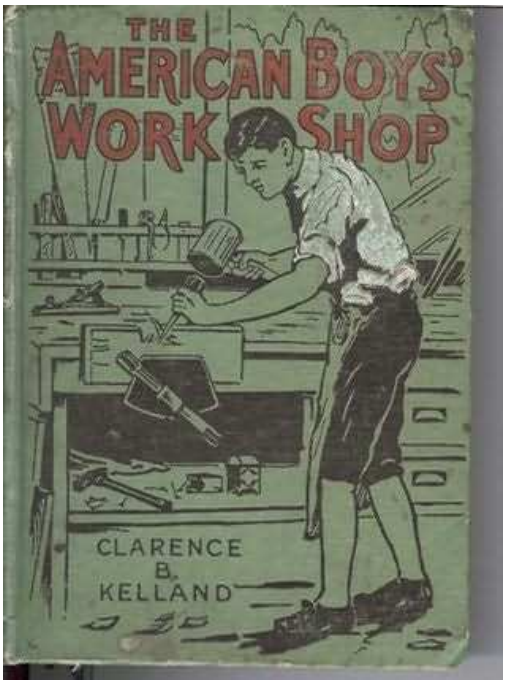


Figure 46 Clarence Kelland's "The American Boy's Workshop. A 'How-To" Adventure for Boys. (Photo by Author, 2016)


Figure 47 House Keeping Lessons Found In The 1904 Schoolhouse. (Cleaveland 1927:n.d.) (Photo by Author, 2016)

*Material Culture, Curriculum, and Classroom Management*

Barnard's Educational Structures Model (1850: 79-80) also provides a framework of classroom instruction that contributes to creating an efficient workforce. It is possible to use the textbooks and lectures to control a student's learning and introduce behavioral modification through various means of reinforcement. The same methods also reinforce gender identity roles. Barnard's first prescription is the individual instruction method. This method can be used in the mathematics and English lessons. The teacher can call on individual students to come to stand and recite from the lesson books, or to take a turn at the blackboard to solve a mathematical equation.

Using the *McGuffey's Eclectic Reader* (Figure 42) to teach several grade levels, allows the use of the simultaneous method of instruction. The teacher can use the same lesson for several reading levels, reinforcing the lessons to be learned. This means that each student can reach proficient levels in a much faster time. When applying the mutual method of instruction, the same English lesson can allow older students to work with younger students during English or reading lessons. This gives the older students experience in mentoring or supervising others.

From a Marxist perspective, the use of these methods reflects the workplace environment that a student will experience when entering the workforce. One way of teaching healthy workplace habits is the use of the mentor system. The same methods of instruction that Barnard espoused work to help train workers to reach daily goals and to reproduce the work required.

# CHAPTER 8
# DISCUSSION

The role of education in rural communities has been the focus of my research. This chapter is divided into three sections. The first section will discuss the findings of each research question. The second will discuss the application of The Site Specific Formation Model (Beisaw and Gibb 2009:55). The final section consists of recommendations for future research and historic preservation in New Mexico.

Question 1: **How are the space of a rural schoolhouse and classrooms organized to train students to be a productive worker**?

The evidence presented supports the hypothesis that Lake Valley's schools were organized to form a productive and obedient workforce. The Site Formation Process Model (Beisaw and Gibb 2009:55) exhibits how the arrangement of both the schoolhouses and classroom space was adapted and used over time during the life cycle of each structure.

The 1893 schoolhouse was a remodeled space that follows the expected deposition rates of the Site Formation Process. As the HABS/HAER Inventory Report of 1991 shows (Browning 1991: G-1116), the building was built several years before use as a schoolhouse. The changes to the interior of the structure fit the renovation process. This remodeling allowed the instructor to be more effective in applying methods of instructions that would teach students skills needed to be a productive workforce.

Further evidence to support this hypothesis is the application of the Educational Structures Model (Barnard 1850:79-80). Barnard wrote that there are specific arrangements of space and material culture (items inside) that create a successful education model (1850:79-80). The arrangement of the classroom, according to Barnard's standards, increased the use of methodologies that helped teachers improve the student performance. Using the systems created by Barnard, students would experience a space similar to the workplace, easily adapting to that role upon graduation.

The 1904 schoolhouse was built as an educational institution. The site selection at one of the highest points of the town site is an arrangement of space that reflects of Barnard's school model (1850:78). The elevation of the instructor's platform shows the arrangement of room in a hierarchical manner. This arrangement establishes a focus of authority. The desks arranged in long straight rows illustrates there is a method of rewards and punishments in place in the school as in work by rewarding a student's good performance by moving them toward the back of the room, to higher responsibility and promotion of positions.

As the State of New Mexico developed its system of education, it dictated new models of schools based on the needs of rural communities. However, Barnard's model was still applied to curriculum and classroom activities.

Question 2: **How do the classroom curriculum and activities reflect the community's desire to educate a productive workforce?**

The evidence presented in the previous chapters support the hypothesis that the choice of curriculum and activities for the Lake Valley schools helped created a productive workforce. The community decided it was the role of the schools in Lake Valley to teach the children how to become active community members and exhibit all the traits of good citizenship. Althusser's understanding of the role in education was an efficient workforce is created through the use of transmitted social norms and enforced behavior by the most efficient means possible (Vontz 1997:15-16). Evidence to support this hypothesis is found in the cultural remains inside the classroom of the 1904 schoolhouse at Lake Valley.

Arthur Dunn's *The Community and the Citizen* (Figure 44) is a book found in the museum collections. Dunn included chapters on the community's relationship and responsibilities of health, property, business, education, religion and government. Dunn's desire was to enable the child to form a meaningful relationship with the community (Vontz 1997:27-28). Dunn stresses the relationship of the student to his role in the community through various topics in the school. He also develops the understanding of the students' greater relationship with the state and nation. In teaching students to become involved in the community, their ties to the industry of the town are strengthened, and an atmosphere that makes them a productive workforce is created.

Question 3: **Is the life cycle of the Lake Valley schoolhouses typical of other rural New Mexico schools?**

Lake Valley Schools are an excellent example of Beisaw's framework. One of the unique things about the education of children at Lake Valley is that one can view the complete life cycle of a school system when applying the Site Formation Process Model (Table 2). Not all six fundamental principles of this model are used in the Lake Valley schoolhouses, but there is sufficient evidence to prove the applicability of the model to rural schoolhouses in New Mexico.

There were some limitations found when applying this model at the Lake Valley schools. The first was locating associated refuse piles and outbuildings associated with the 1893 and 1904 schoolhouses. Without these items, the expected deposition rates used in Beisaw's model (Table 2) are difficult to predict. At the 1893 schoolhouse site, identified trash pits had only a few associated materials from the schoolhouse years. The materials consisted mostly of window glass and stove parts (Ackerly and Stuedli 2004:6-6, 8-64). A second limitation to recording associated materials is identifying trash deposits that belong with each schoolhouse. The Lake Valley townsite covers a vast area (nearly 38 acres) and is littered with new and historical trash. It has also been subject to vandals and artifact collectors for many years (Browning 1991:28; Cumiford 1977:3).

Despite the limitations of Lake Valley, the evidence provided by comparing the 1893 and 1904 schoolhouses to other rural schoolhouses in New Mexico shows that the life cycle was typical of other buildings. The Jicarilla schoolhouse shows the medium deposition rates and concurrent uses (Table 2). Effie Peacock's letter states that the schoolhouse was used each Sunday for services, and after a new schoolhouse

was built, the original building was used for a Catholic congregation. The Jicarilla school also demonstrates abandonment at the original school and the replacement school. The buildings were abandoned as the community population dwindled. The low expected deposition rates of a schoolyard and possible graveled yard or coal/trash pits were bourne out.

The Red River Schoolhouse is an example of high expected deposition through rebuilding. The building described earlier is the second schoolhouse built on the site, near the original location. The photograph shows an elevated schoolhouse (Figure 37). Extensive excavations under the building could provide identification of the original footprint of the first schoolhouse. Excavations can also give evidence of education accessories. Finding coal or trash piles with associated schoolhouse materials could also be beneficial in locating earlier schoolhouse locations.

The Carson schoolhouse built in 1912 exhibits the same life cycle as the Red River schoolhouse and the Lake Valley schoolhouses (Figure 38). The original building for the school was created and replaced in 1912. After the second structure was built, high deposition rate occurred during remodeling. This began almost immediately after the structure was completed (Perry 1986:2).

The Carson schoolhouse also gives evidence of medium expected deposition rates in that it was being used concurrently as a space for church services. This lasted until 1932. The concurrent use continued after the school ceased functioning, through the owners leasing the building for other functions (Perry 1986:3).

With Question 3 being answered in the affirmative, the answer to Question 4 will provide more information on the role of rural schoolhouses in New Mexico.

Question 4: **What further work on preservation can be done in New Mexico?**

Historic preservation of schoolhouses in New Mexico has been limited to 52 buildings listed in the NMCRIS/ARMS system. The Lake Valley schools provide evidence that the application of Beisaw's site formation model can work in a wide range of research sites. The discussion of the Carson Schoolhouse and the Red River Schoolhouse provide evidence of the model's applicability. Both schoolhouses contained high expected deposition rates (Table 2), exhibiting the processes of concurrent use, remodeling, reuse, and abandonment.

The Site Formation Process Model (Beisaw and Gibb 2009:55) can provide a research tool for the preservation of other rural schoolhouses. It is possible to apply this model using historical records to find locations where schools were adapted from other uses.

Preservation of schools such as Jicarilla, Carson, and Red River can show community involvement in rural schoolhouses. Examples illuminate how the community helped pay for construction; or provided materials. Schoolhouses also show concurrent use by religious institutions or as dance halls.

Potential research topics that remain for study at the 1893 and 1904 schoolhouses at Lake Valley involve the cultural material remains to examine reuse and abandonment of the buildings. Can some trash piles be located that identify what

material was discarded? How was the 1993 schoolhouse adapted for use as a bar and eventually a gas station?

It is also possible to do a comparison study of rural education in other rural school systems across the state to see if the industrial base of the community influenced the space arrangement of those schools.

# CHAPTER 9
# CONCLUSIONS

The goal of this thesis was to examine how the location of schoolhouses and the arrangement of space of schoolhouses are used to educate the children in a community to become a productive workforce. The arrangement of space at the Lake Valley schoolhouses provides evidence of change in teaching styles during their life cycle. Further proof of the arrangement of space to create a productive workforce was provided by the application of Henry Barnard's Educational Structures Model (1850:79-80).

Studying classroom activities and curriculum in the schoolhouses has provided an understanding of the role of education in rural communities in New Mexico. The evidence presented shows that most rural schools in New Mexico had a multi-use function. In addition to creating an efficient workforce for the industrial base of the town, they also functioned as a community gathering area. Using a Marxist perspective explains that the location of a schoolhouse also showed the town's regard for education. The schoolhouse of a community was a psychological symbol that the town was thriving, and education systems helped advance the workforce.

The preservation and documentation of material culture at schoolhouses can contribute to our understanding of the creation of an efficient workforce in a community. The schoolhouses of Lake Valley provided evidence Bernard's models were a universal form of education standards that helped provide quality education.

By applying the Site Formation Process Model (Beisaw and Gibb 2009:55) it was learned that the model can be applied to any schoolhouse site. Previous research has been confined to Upper Midwest and East Coast schools. When a schoolhouse is abandoned and left undisturbed the key processes of the Site Formation Process Model (Beisaw and Gibb 2009:55) can yield additional information about the life cycle of that school.

From the perspective of historic preservation, the schoolhouses at Lake Valley have provided an excellent example of preservation that can be applied to other rural education sites across the State of New Mexico. Preservation efforts of the 52 schools on the New Mexico and National Register are a vehicle for education. These schoolhouses are a tangible link to the past and are a way to bring meaning and history to people's lives. Schoolhouses are reminders of a town or city's culture and complexity. They show a sense of permanency and heritage reflected in the schoolhouse.

I would recommend that the historic schoolhouses on the State and National Register be extensively excavated to continue the study and documentation of the role of education in the community.

# APPENDIX A

# HISTORIC SCHOOLHOUSES IN NEW MEXICO ON THE STATE AND NATIONAL REGISTERS

Table 5
Historic Schoolhouses in New Mexico on the State and National Register (Sorted by County)

| Name of Schoolhouse | Address | City | County | Date of State Nomination | Date of National Nomination | Period of Significance |
|---|---|---|---|---|---|---|
| Columbia School | 700 North 2nd | Raton | Colfax | 1996 | 1996 | New Deal |
| Kearny School | 800 South 3rd | Raton | Colfax | 1996 | 1996 | New Deal |
| Longfellow School | 700 East 4th Street | Raton | Colfax | 1996 | 1996 | New Deal |
| Raton Jr. High School | 500 South 3rd Street | Raton | Colfax | 1996 | 1996 | New Deal |
| Abo Elementary School | 1802 Center Avenue | Artesia | Eddy | 1999 | 1999 | WPA |
| Cornado School | 601 4th Street SW | Albuquerque | Bernalillo | 1996 | 1996 | |
| Manzano Day School | 1801 Central Avenue NW | Albuquerque | Bernalillo | 1969 | 1983 | |
| Haward School | 1114 7th Street NW | Albuquerque | Bernalillo | 1979 | 1983 | |
| Monte Vista School | 3211 Monte Vista Boulevard NE | Albuquerque | Bernalillo | 1981 | 1981 | |
| Old Armijo School | 1021 Isleta Boulevard SE | Albuquerque | Bernalillo | | | |
| Our Lady of Angels School | 320 Romero Street NW | Albuquerque | Bernalillo | 1984 | 1984 | |
| Albuquerque Indian Boarding School (Employees Dorm) | 1000 Menaul Blvd NW | Albuquerque | Bernalillo | 1981 | 1982 | |
| Albuquerque Indian Boarding School | 1000 Menaul Blvd NW | Albuquerque | Bernalillo | 1981 | | |

| Name of Schoolhouse | Address | City | County | Date of State Nomination | Date of National Nomination | Period of Significance |
|---|---|---|---|---|---|---|
| (Health Services) | | | | | | |
| Santa Barbara School | 1420 Edith Boulevard NE | Albuquerque | Bernalillo | 1989 | 1989 | |
| West San Jose School | 1701 4th Street SW | Albuquerque | Bernalillo | 1996 | 1996 | 1919 |
| Old Armijo School | 1021 Isleta Boulevard SE | Albuquerque | Bernalillo | 1982 | 1982 | 1914 |
| Saint Catherine's School | 102 Grant Street | Santa Fe | Santa Fe | 2001 | | |
| Acequia Madre Elementary School | 700 Acequia Madre Street | Santa Fe | Santa Fe | 2006 | | WPA |
| Carlos Gilbert Elementary School | 300 Griffin Street | Santa Fe | Santa Fe | 2006 | | WPA |
| Civilian Conservation Corps Camp BF-39N Schoolhouse | 535 South Melendres Street | Las Cruces | Dona Ana | 2007 | | WPA |
| Mesilla Park Elementary School | 304 South Bell Avenue | Las Cruces | Dona Ana | 2014 | 2015 | WPA |
| Court Junior High School | 400 Block West Court Street | Las Cruces | Dona Ana | 1989 | | |
| Gadsden High School | State Road 28 | Anthony | Dona Ana | 1992 | | |
| Mimbres School | East of State Highway 61 and Forest Road 73 | Mimbres | Grant | 1988 | 1988 | |
| Bueyeros School | State Road 102, 0.25 miles west of | Bueyeros | Harding | 1996 | 1996 | 1931 |

| Name of Schoolhouse | Address | City | County | Date of State Nomination | Date of National Nomination | Period of Significance |
|---|---|---|---|---|---|---|
| | Bueyeros Church | | | | | |
| Lordsburg High School | 209 Penn Street | Lordsburg | | | | |
| Carson School | Highway 96 | Carson | Taos | | 1986 | 1912-1920 |
| Red River Schoolhouse | Main Street | Red River | Taos | | | |

# APPENDIX B

# INVENTORY OF SELECT TEXTBOOKS IN THE 1893 AND 1904 SCHOOLHOUSES AT LAKE VALLEY

Table 6
Selected Inventory of Textbooks and Library Books at Lake Valley

| Book Title | Author | Publisher | Pub. Date |
|---|---|---|---|
| Riverside Literature Series | Various | Hougton Mifflin Co. | 1915 |
| The Romance of Modern Chemistry | James C. Philip | James Hall Publishing Company | 1910 |
| Last of the Mohicans | James Fenimore Cooper | | 1912 |
| The Jones Reader | Lewis Henry Jones | Ginn & Company | 1903 |
| McGuffey's 4th Eclectic Reader | William Holmes McGuffey | American Book Company | 1896 |
| Aldine Reader | Catherine Bryce, Frank Sherman, Arthur Kallom | Newsome and Company | 1921 |
| Wild Man of the West | Robert Michael Ballantyne | Routledge, Warne & Routledge | 1863 |
| Leading Facts of New Mexico History | Ralph Emerson Twitchel | New Mexico Press | 1923 |
| Textbook in General Zoology | Harley Jones Van Cleave, Henry August Kelly | Ginn & Company | 1920 |
| The Junior Classics | Eds. Mables Williams, Marcia Dalphin | R.F. Collier & Sons | 1932 |
| Cleanliness and Health | CE Turner, Georgie B. Collins | D.C. Heaths Company | 1926 |
| Grade 7-The Triangle Mathmatics | | Winston | 1931 |
| Modern Geography | Salisbury | Barrows & Tower | 1912 |
| A Boys Workshop | Editor Clarence Budington Kelland | David McKay | 1914 |
| The White Christmas and Other Merry Christmas Plays | Hare | Dennison | |
| The Spanish in the Southwest | R. V. Winterburton | American Book Company | 1920 |
| The Community and the Citizen | Arthur William Dunn | D.C. Heath | 1907 |

# APPENDIX C

## DATA FROM CENSUS ENUMERATION ROLLS

Table 7
New Mexico Territorial Census of 1885
(U.S. Census Bureau M846:Rolls 1-6)

| PERSONAL DISCIPTION | | | | | | | EDUCATION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **LN#** | **LAST NAME** | **FIRST NAME** | **RACE** | **SEX** | **AGE** | **RELATIONSHIP** | **MO AT SCHOOL** | **CANNOT READ** | **CANNOT WRITE** | **BIRTH PLACE** | **FATHER BIRTHPLACE** | **MOTHER BIRTHPLACE** |
| 10 | Sheads | J.E. | W | M | 12 | S | / | | | TX | TX | TX |
| 13 | Russell | K.L. | W | M | 6 | S | / | | | MO | VT | Ohio |
| 25 | Doerges | C. | W | F | 5 | D | / | | | NM | Ger | Ger |
| 34 | Keefoven | N.S. | W | M | 13 | S | / | | | MO | Ohio | Ohio |
| 35 | Keefoven | R.A. | W | F | 8 | D | / | | | MO | MO | MO |
| 81 | Curren | Anna | W | F | 5 | D | / | | | KS | KS | KS |

Table 8
1900 United States Federal Census
(U.S. Census Bureau T623:Rolls 184-188)

| LINENO | LASTNAME | FIRSTNAME | RELATIONSH | SEX | AGE | BIRTHPLACE | SPEAKSENGL | MOTHERS BIRTHPLACE | ATTENDEDSC | CANREAD | CANWRITE | CAN SPEAK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | McKinney | Charles A. | S | M | 18 | TX | TX | MO | Y | Y | Y | Y |
| 17 | Keith | Nellie | D | F | 16 | TX | TX | TX | Y | Y | Y | Y |
| 18 | Keith | Ned | S | M | 5 | TX | TX | TX | Y | Y | Y | Y |
| 19 | Keith | Lee | S | M | 11 | NM | TX | TX | Y | Y | Y | Y |
| 23 | Ingals | Jane | D | F | 12 | NM | Scot | Scot | Y | Y | Y | Y |
| 24 | Ingals | Elizabeth | D | F | 11 | NM | Scot | Scot | Y | Y | Y | Y |
| 25 | Ingals | Jesse | D | F | 10 | NM | Scot | Scot | Y | Y | Y | Y |
| 26 | Ingals | Jamima | D | F | 8 | NM | Scot | Scot | Y | Y | Y | Y |
| 47 | Fisher | Gladis | D | F | 11 | IL | VT | IL | Y | Y | Y | Y |
| 54 | McClain | Emilee | D | F | 8 | NM | UNK | Eng | Y | | | |
| 61 | Field | Mirtel E. | D | F | 6 | NM | TX | TX | Y | | | |
| 62 | Field | Florence N. | D | F | 3 | NM | TX | TX | Y | | | |
| 83 | Miller | Florence | D | F | 15 | NM | VA | VA | Y | Y | Y | Y |
| 91 | Jobe | Robert J. | S | M | 10 | MO | NS | MO | Y | | | |
| 19 | Faulkner | Madura O. | D | F | 16 | TX | AL | TX | Y | Y | Y | Y |
| 20 | Faulkner | Charles B. | S | M | 14 | NM | AL | TX | Y | Y | Y | Y |
| 21 | Faulkner | Edward G. | S | M | 11 | NM | AL | TX | Y | Y | Y | Y |
| 22 | Faulkner | Rufus B. | S | M | 8 | NM | AL | TX | Y | Y | Y | Y |
| 51 | Cox | Frank B | S | M | 12 | NM | TN | TX | Y | Y | Y | Y |
| 57 | Lee | Martha | D | F | 13 | NM | AL | PA | Y | Y | Y | Y |
| 58 | Lee | Alice | D | F | 11 | NM | AL | PA | Y | Y | Y | Y |
| 64 | Latham | Brad | S | M | 17 | TX | LA | AR | Y | Y | Y | Y |
| 65 | Latham | Dallie | D | F | 14 | NM | LA | AR | Y | Y | Y | Y |
| 66 | Latham | Grover | S | M | 11 | NM | LA | AR | Y | Y | Y | Y |
| 79 | Parks | Pearl L. | D | F | 15 | NM | IL | CO | Y | Y | Y | Y |
| 80 | Parks | Mabel M | D | F | 13 | NM | IL | CO | Y | Y | Y | Y |
| 81 | Parks | Olive B. | D | F | 10 | NM | IL | CO | Y | Y | Y | Y |
| 82 | Parks | Joseph F. | S | M | 8 | NM | IL | CO | Y | Y | Y | Y |
| 87 | Miller | Ezra W. | S | M | 17 | MO | IA | IA | Y | Y | Y | Y |
| 88 | Miller | Ira C. | S | M | 11 | KS | IA | IA | Y | Y | Y | Y |

| LINENO | LASTNAME | FIRSTNAME | RELATIONSH | SEX | AGE | BIRTHPLACE | SPEAKSENGL | MOTHERS BIRTHPLACE | ATTENDEDSC | CANREAD | CANWRITE | CAN SPEAK |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 89 | Miller | Decota | D | F | 9 | I.T. | IA | IA | Y | Y | Y | Y |
| 95 | Bryant | Charles C. | S | M | 16 | TX | GA | GA | Y | Y | Y | Y |
| 99 | Numm | James P. | S | M | 12 | NM | CA | TX | Y | Y | Y | Y |
| 100 | Numm | Emmitt M. | S | M | 9 | NM | CA | TX | Y | Y | | |

Table 9
1910 United States Federal Census
(U.S. Census Bureau T624:Rolls 235-237)

| LN# | LAST NAME | FIRST NAME | RELATION | SEX | LAST AGE | BIRTHPLACE | BIRTHPL FATHER | BIRTHPL MOTHER | SPEAK ENG? | CAN READ | CAN WRITE | ATTD SCH |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | Hannah | Florence | D | F | 1 | NM | IL | NV | Y | | | Y |
| 14 | ? | Rita | D | F | 13 | NM | VT | VT | Y | Y | Y | Y |
| 15 | ? | ? | D | F | 11 | NM | VT | VT | Y | Y | Y | Y |
| 18 | Quinn | H? M. | D | F | 14 | NM | KS | IA | Y | Y | Y | Y |
| 19 | Quinn | ? Jr | S | M | 13 | NM | KS | IA | Y | Y | Y | Y |
| 24 | Beale | Carolyn | D | F | 14 | NM | MI | MI | Y | Y | Y | Y |
| 29 | Robinson | Maud | D | F | 15 | NM | GA | PA | Y | Y | Y | Y |
| 30 | Robinson | Vona D. | D | F | 13 | NM | GA | PA | Y | Y | Y | Y |
| 31 | Robinson | Francisco M. | S | M | 11 | NM | GA | PA | Y | Y | Y | Y |
| 32 | Robinson | Ella M. | D | F | 9 | NM | GA | PA | Y | Y | Y | Y |
| 33 | Robinson | Alicia | D | F | 7 | NM | GA | PA | Y | Y | Y | Y |
| 34 | Robinson | George A. | S | M | 5 | NM | GA | PA | Y | Y | Y | Y |
| 38 | McClean | Emory E. | S | M | 13 | NM | TX | TX | Y | Y | Y | Y |
| 39 | McClean | Mattie M. | D | F | 10 | NM | TX | TX | Y | Y | Y | Y |
| 40 | McClean | Augusta E. | D | F | 8 | NM | TX | TX | Y | Y | Y | Y |
| 41 | McClean | Lela R. | D | F | 6 | NM | TX | TX | Y | Y | Y | Y |

Table 10
1920 United States Federal Census
(U.S. Census Bureau T625:Rolls 0138-1042)

| LAST NAME | FIRST NAME | RELATION | SEX | AGE | ATT SCH | CAN READ | CAN WRITE | BIRTHPLACE | TONGUE | F. BIRTHPL | F. TONGUE | M. BIRTHPL | M. TONGUE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Markey | Annie Fay | D | F | 11 | Y | Y | Y | NM | EN | TX | EN | NM | EN |
| Markey | James Hoyt | S | M | 10 | Y | Y | Y | NM | EN | TX | EN | NM | EN |
| Markey | William R. | S | M | 8 | Y | Y | Y | NM | EN | TX | EN | NM | EN |
| Abeta | Marciela | D | F | 11 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Abeta | Roma | D | F | 10 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Abeta | Jesus | S | M | 8 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Garcia | Omarita | D | F | 14 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Garcia | Carlos | S | M | 12 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Martinez | Tomas | S | M | 16 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Martinez | Juanna | D | F | 10 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Martinez | Iona | D | F | 8 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Martinez | Juanha | D | F | 7 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Martinez | Antonio | S | M | 2 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Arriguisas | Maria | D | F | 15 | Y | N | Y | MX | SP | MX | SP | MX | SP |
| Arriguisas | Jpsephita | D | F | 14 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Flores | Pettis | D | F | 7 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Arriguisas | Candida | D | F | 9 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Arriguisas | Juanita | D | F | 7 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Lopez | Darris | S | M | 13 | Y | Y | Y | AZ | SP | MX | SP | MX | SP |
| Lopez | Rafaela | D | M | 11 | Y | Y | Y | AZ | SP | MX | SP | MX | SP |
| Lopez | Paulina | D | M | 9 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Lopez | Santos | S | M | 7 | Y | Y | Y | NM | SP | MX | SP | MX | SP |

| LAST NAME | FIRST NAME | RELATION | SEX | AGE | ATT SCH | CAN READ | CAN WRITE | BIRTHPLACE | TONGUE | F. BIRTHPL | F. TONGUE | M. BIRTHPL | M. TONGUE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ortiz | Simpo sn | S | M | 12 | Y | Y | Y | TX | SP | MX | SP | MX | SP |
| Ortiz | Casiau s | S | M | 9 | Y | Y | Y | TX | SP | MX | SP | MX | SP |
| Ortiz | Pedro | S | M | 8 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Flores | Edwar do | S | M | 14 | Y | Y | Y | NM | SP | NM | SP | NM | SP |
| Flores | Cecilia | D | F | 13 | Y | Y | Y | NM | SP | NM | SP | NM | SP |
| Barreras | Alecia s | S | M | 10 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Grhahm | Larry S. | S | M | 22 | Y | Y | Y | TX | EN | IN | EN | TX | EN |
| Grhahm | Willis T. | S | M | 17 | Y | Y | Y | TX | EN | IN | EN | TX | EN |
| Grhahm | Homer J. B. | S | M | 10 | Y | Y | Y | TX | EN | IN | EN | TX | EN |
| ? | Ramon | S | M | 10 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| ? | Julia | D | F | 11 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| ? | Petra | D | F | 7 | Y | N | N | NM | SP | MX | SP | MX | SP |
| Martine z | Guadal upe | S | M | 9 | Y | N o | N | MX | SP | MX | SP | MX | SP |
| Arriguis as | Arturio | S | M | 13 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Arriguis as | Anasta sia | D | F | 12 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Arriguis as | Guadal upe | D | F | 11 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Arriguis as | Misalli a | D | F | 10 | Y | Y | Y | MX | SP | MX | SP | MX | SP |
| Arriguis as | Vineta | D | F | 8 | Y | Y | Y | NM | SP | MX | SP | MX | SP |
| Arriguis as | France sica | D | F | 6 | Y | Y | Y | NM | SP | MX | SP | MX | SP |

Table 11
1930 United States Federal Census
(U.S. Census Bureau T626:Rolls 1212-1215)

| LAST NAME | FIRST NAME | RELATION | SEX | AGE | ATTD SCH | CAN RD/WR | BIRTHPLACE | F. BIRTHPLACE | M. BIRTHPLACE | M. TONGUE | SPK ENGL? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nunn | Elizabeth | D | F | 13 | Y | Y | NM | NM | NM | E | Y |
| Nunn | David M. | S | M | 12 | Y | Y | NM | NM | NM | E | Y |
| Nunn | Julia | D | F | 10 | Y | Y | NM | NM | NM | E | Y |
| Nunn | Henry M | S | M | 9 | Y | Y | NM | NM | NM | E | Y |
| McGregor | Grant R. Jr. | S | M | 17 | Y | Y | NM | NE | NM | E | Y |
| McGregor | Inez B. | D | F | 15 | Y | Y | NM | NE | NM | E | Y |
| McGregor | Carlton H. | S | M | 13 | Y | Y | NM | NE | NM | E | Y |
| McGregor | Malcom R | S | M | 7 | Y | Y | NM | NE | NM | E | Y |
| Nunn | Edward Jr | S | M | 7 | Y | Y | NM | NM | NM | E | Y |
| Nunn | Harvey | S | M | 6 | Y | Y | NM | NM | NM | E | Y |
| Latham | Edwina M. | D | F | 9 | Y | Y | NM | NM | NM | E | Y |
| Latham | Paulina | D | F | 7 | Y | Y | NM | NM | NM | E | Y |
| Robles | Romona | L | F | 12 | Y | Y | NM | NM | NM | E | Y |
| Balico | Roy | S | M | 15 | Y | Y | NM | TX | TX | E | |
| Balico | Andrew | S | M | 13 | Y | Y | NM | TX | TX | | |
| Wallace | Calvin | S | M | 14 | Y | Y | NM | TX | AR | | |
| Wallace | Wade | S | M | 9 | Y | Y | NM | TX | AR | | |
| Willis | Ernest | S | M | 15 | Y | Y | TX | TX | TX | | |
| Willis | Earl | S | M | 12 | Y | Y | TX | TX | TX | | |
| Willis | Thelma | D | F | 11 | Y | Y | TX | TX | TX | | |
| Martin | Coleman Jr. | S | M | 6 | Y | Y | NM | NM | OH | | |
| Castro | Herminia | D | F | 7 | Y | Y | NM | MX | MX | S | |
| Nunn | Arthur | S | M | 16 | Y | Y | NM | NM | NM | E | |
| Nunn | William | S | M | 15 | Y | Y | NM | NM | NM | E | |
| Nunn | Ida B. | D | F | 13 | Y | Y | NM | NM | NM | E | |

| LAST NAME | FIRST NAME | RELATION | SEX | AGE | ATTD SCH | CAN RD/WR | BIRTHPLACE | F. BIRTHPLACE | M. BIRTHPLACE | M. TONGUE | SPK ENGL? |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Nunn | C. Richard | S | M | 11 | Y | Y | NM | NM | NM | E | |
| MacKey | William R. | S | M | 18 | Y | Y | NM | TX | NM | | |
| Piro | Vincenta | D | F | 7 | Y | Y | NM | NM | MX | | |
| Piro | Manuel | S | M | 6 | Y | Y | NM | NM | MX | | |
| Alvarez | Juan | D | F | 14 | Y | Y | NM | MX | MX | | |
| Alvarez | Jose | S | M | 12 | Y | Y | NM | MX | MX | | |
| Alvarez | Francisca | D | F | 11 | Y | Y | NM | MX | MX | | |
| Alvarez | Manuel Jr. | S | M | 9 | Y | Y | NM | MX | MX | | |
| Alvarez | Juana | D | M | 6 | Y | Y | NM | MX | MX | | |
| McKinney | Alice M. | S | F | 16 | Y | Y | NM | TX | NM | | |
| McKinney | William P. | S | M | 14 | Y | Y | NM | TX | NM | | |
| Truillo | Nino | GS | M | 7 | Y | Y | NM | NM | NM | | S |
| Gray | Anna | D | F | 11 | Y | Y | TX | TX | TN | | |
| Merrill | Francis | SD | F | 18 | Y | Y | TX | CT | TN | | |

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