The Perseverance of Play: An Archaeological Analysis of Residential Blocks with Preschools at the Amache National Historic Site

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Abstract
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The Perseverance of Play: An Archaeological Analysis of Residential Blocks with Preschools at the Amache National Historic Site

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by

Megan Brown

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Advisor: Dr. Bonnie Clark
Abstract

The purpose of this project is to expand on the understanding of experiences of Japanese American children, specifically preschool-aged children, within the Amache National Historic Site, a WWII Japanese American internment facility located in Granada, Colorado. Through archaeological methods, GIS analysis, oral histories, and archival research, I analyzed the landscape and material culture of the five residential blocks within Amache that had designated preschools. I then compared these blocks with preschools to residential blocks without preschools to determine if there are any patterns and discernable differences between the two study areas. The findings of this research provide insight into how young children left a discernable impression on the site through their agency in the community as a whole.
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Chapter One: Introduction

“Children should be seen and not heard” is a well-known and outdated adage that has played into many aspects of how childhood has been viewed through a historic lens. While children were “seen” in the archaeological record, their voices were muted, replaced by preconceived notions or theoretical standpoints that ignored a child’s place within society. Historically, these active societal agents were not heard despite evidence of their presence. Finding children in the archaeological record can be easy when one knows what to look for.

Childhood is a concept that has morphed and changed throughout human history. The age that one is considered a child as well as what is considered actual childhood varies from culture to culture and has changed through time. Kathryn Kamp lists five points to consider in relation to childhood:

“(1) it is important to differentiate between childhood and its stages as a cultural construct and the realities of particular children’s lives, (2) the lived experiences of children may well not mirror perfectly the cultural definitions of the ideal or “normal” childhood, (3) like adults, children are neither completely autonomous agents nor totally controlled by others, (4) childhood tends to be a gendered construct and children’s experiences are usually gendered as well, and (5) children are active social agents, constantly negotiating their situation with adults and peers and a potential force for social transformation” (Kamp 2016, 155).

The purpose of this project is to continue to expand upon the understanding of experiences of Japanese American children, specifically preschool-aged children, within The Granada Relocation Center, currently known as the Amache National Historic Site, a
WWII Japanese American internment facility located in Granada, Colorado. My study was an analysis of the landscape and material culture of the five residential blocks within Amache that had designated preschools. I then compared these blocks with preschools to residential blocks without preschools to determine if there were any patterns and discernable differences between the two study areas. I used multiple avenues of analysis, including archaeological methods, GIS analysis, conducting interviews to record oral histories, and archival research. It is my hope that the findings of this research will provide insight into how young children left a discernable impression on Amache through their agency in the community as a whole.

The cultural material that I used to determine what spaces children occupied were artifacts that had been classified as toys. Toys were important objects to the children of Amache, as an avenue of how children cope with forces outside of their control was through play. According to Eleanor Casella, when individuals were held in confinement, “... inhabitants co-opted their surrounding material world to retain some measure of control” (Casella 2007, 3). Within a space of confinement, how the internees coped with incarceration determined how they would make the best of the frightening experience. While studies on institutional confinement tend to focus on the experiences of adults, how children cope with confinement is not as extensive. Sadly, children made up the majority of those who were incarcerated at Amache (Simmons and Simmons 1993, 23).

What makes this study of children unique in the archaeological record at Amache is that we have multiple sources that identify and explain the types of toys and spaces where children would have played and occupied at the internment facility. There are
many recorded anecdotes from survivors, historic catalogues with toys, as well as many photos of children going about their day-to-day life and participating in various activities, both from the government agencies and from personal collections. These resources provide first-hand accounts of what games children would play at Amache and what toys they would play with. While some objects are studied from a group perspective, it is important to remember the individuality of each child. No children play in the exact same manner and while there are broad similarities between children of the same community and how they may play, personal experiences and imagination shape the way that they play with their toys.

Historically, while children’s toys are indicative of parent’s and societal choices that are placed on a child, children still have agency in how they interact with and the emotion that they place on the objects. Miriam Jennie Bunow states that, “the majority of archaeological analyses focus not on the behavior of children themselves but on the consumption choices made by parents purchasing the toys and other children’s material” (Bunow 2009, 8). Placing complete control in the hands of the parents can erase the agency of the child. The parent may choose a toy with a certain social connotation to give the child, but it is the child’s choice of whether or not to play with it. There is also the scenario of a child asking for a toy that they may have seen a peer playing with or that they may have seen in the Amache Co-op or a mail order catalogue. There are several social connotations to this, but ultimately, the child is the one who determines if the toy is worthy of their time and energy. The complicated relationship between people and
objects is a fundamental aspect of archaeology and it is important to make sure that everyone’s agency is acknowledged to understand the full picture.

**Research Design**

My research design was informed by the questions:

- How were the preschool/nursery institutions created? What was its design?
- What were preschooler’s experiences within Amache?
- What are the spatial differences between blocks with preschools/nurseries and those without?
- Is there a difference in toy distribution in blocks with preschools/nurseries and those without?
- Was the landscape altered differently in blocks with preschools compared to blocks without?

Through archaeological evidence, oral histories, photos, and primary written resources, it is possible to ascertain Japanese American children’s experiences associated with preschools. Focusing on the locations of toys within blocks and how they relate to the locations of preschools provides a connection to the agency of children. Adding the layer of a landscape analysis brings in how parents and the adult members of the community cared for children by customizing these spaces to add comfort and pleasing visual aspects to their day-to-day life. Combining these aspects sheds light on the various aspects of children's experiences within Amache and how their presence left its impact on the landscape. It also shows how children affect the way that adults interact with the
landscape as well as how their presence played into the community movement to make a more hospitable environment.

The terms preschool, nursery, and day care seem to apply to the same institution in the documents that I found through my research, therefore when these terms are used in this project, they are used interchangeably depending on the original author’s preference. These terms roughly refer to children aged 2–4 years old. The study of childhood at Amache is particularly poignant in that there are survivors who are still alive. These survivors were children during incarceration and their experiences are the last first-hand accounts that can corroborate our findings throughout our research. I was able to conduct an oral history with Carlene Tanigoshi Tinker, a survivor who attended preschool at Amache, while we were in Granada conducting fieldwork for the DU Amache Research Project. She and her family lived in block 11G and she walked to attend preschool in the 11F recreation hall (Tinker 2021). Her interview helped provide context to archaeological and spatial data that were associated with preschool blocks.

My plan of analysis was to use GIS technology to answer many of my research questions. Geographic Information Systems (GIS) is an invaluable component for recording spatial data and conducting complex analyses within the discipline of archaeology. “GIS … are computer systems whose main purpose is to store, manipulate, analyze and present information about geographic space” (Wheatley and Gillings 2002, 9). Though a simplified definition, GIS is a complex method of analysis and cannot be limited to one distinct definition. There are various types of software that perform GIS analysis and store data and each has its own set of ‘toolboxes’ (Wheatley and Gillings
The software used for all spatial analysis in this project was ESRI-related software, such as ArcGIS Online and ArcGIS Pro.

The use of GIS in archaeology has become commonplace and a staple in archaeological methods. Archaeological sites and their components almost always have a spatial component. GIS allows analysts to visualize the placement of artifacts or features, in relation to each other and other spatial components. This allows for a quick way to determine relationships through the different site components. These GIS techniques also allow for an understanding of relationships between cultural materials and the environment (Wheatley and Gillings 2002, 3).

**DU Amache Research Project**

The entirety of my research has been conducted under the purview of the DU Amache Research Project. The first field school conducted was in 2008 and with the exception of 2020, has been a bi-yearly event ever since. Dr. Bonnie Clark has been the director of the project since the beginning and was joined by co-director April Kamp-Whittaker in 2021. The three main goals of the DU Amache Research Project are:

- To better understand the archaeological resources that make up the site of Amache both on the surface and below ground.
- To improve the understanding of Japanese American internment by the investigation of daily life in confinement.
- To increase the awareness and visibility of the internment period in the history of the state of Colorado and the United States (Clark and Slaughter 6-7, 2020).
The project has flourished into a unique archaeological and community endeavor that encourages the collaboration of survivors, descendants, and field school attendees to work together in excavation and interpretation. They are affiliated and help host annual pilgrimages and conduct open houses during the field season to disseminate findings and learn from survivors and descendants who attend. The DU project also lends their time and expertise to ongoing preservation and reconstruction efforts at the camp. Especially important for this thesis is the return and rehabilitation of a historic Recreation Hall building to Block 11F, one of the five preschool facilities at Amache. DU crews have conducted multiple archaeological studies of the area impacted by its return. They also have consulted on interpretive plans for the structure, work that hopefully this thesis will help ground in solid research. On March 18, 2022, Amache officially became a designated National Historic Site under the National Park System signifying years of hard work from various stakeholders, including the DU Amache Research Project, to preserve the site and its memory (“President Biden Designates Amache National Historic Site 2022).

Conclusion

The purpose of this project is to continue to expand upon the understanding of the experiences of children within Amache, specifically children of preschool age. I hope to do this by expanding on the history of preschoolers at Amache as well as understanding the spatial and landscape differences between blocks that had preschools/nurseries versus those without. This project will continue the advancement of this underrepresented field of the study of children’s experiences and how they left their mark on the archaeological
record. Children are a significant portion of the population and their experiences are important to understand their role in how cultures are created and evolve (Baxter 2005, 2). If their positions are ignored, then we are not recreating a true interpretation of societies and their history.

It is my hope that this research benefits the DU Amache Project as a whole and will be used to bolster future research projects, as well as be a public document for survivors, descendants, and anyone associated with or interested in this facet of life at Amache. Through archaeological research, not only can we understand the physical data presented, but the emotional and lasting impact that the place and space left on the survivors. Oral histories and written accounts of life within Amache provide memories and voices behind every object.
Chapter Two: Historical Background

History of the Japanese in America

America has a long and often appalling history with the treatment of immigrants. The Japanese were no exception. The first law to exclude immigrants of a particular country from the United States was the Chinese Exclusion Act, passed in 1882 (Fong 1971, 407). Naturalization was not possible for any citizen from an Asian country due to The Naturalization Act of 1790, which was upheld by a U.S. Supreme Court decision passed in 1922 (Fong 1971, 409; Hirobe 2001, 6-7).

While the attack on Pearl Harbor brought Anti-Japanese sentiments to a head, these prejudices were common since the Japanese began to immigrate to America. Japan had historically been a self-isolated country, rarely involved in the affairs of other countries or allowing visitors or immigrations to and from the country (Ivey and Kaatz 2017, 17). In the mid-1800s, following pressure from the U.S. military, Japan’s government opened the country to globalization and the Japanese began to immigrate to across the globe, especially throughout the Pacific Rim. Many chose to come to Hawaii and the West Coast of the U.S. due to economic opportunities in the late nineteenth and early twentieth centuries (Smith 1995, 19-53). The Hawaiian government was promoting labor immigration at the time due to a labor shortage that was caused by the decimation of the population from European diseases (Hosok 2010, 76-78). From there, many made their way to the West Coast. In response to this, California passed legislation in 1913 that
banned immigrants from owning land. Issues surrounding immigration escalated, resulting in limits on Japanese applications for U.S. immigration through the exclusion clause that was passed April 12, 1924 (Hirobe 2001, 1-18).

Executive Order 9066

Japanese immigrants in America had been subjected to racism and limited opportunities for almost a century before World War II began. The bombing of Pearl Harbor on December 7, 1941 turned previous tensions into a frenzy of fear and paranoia. On February 19, 1942, President Franklin D. Roosevelt signed Executive Order 9066. This legislation paved the way for the relocation of Japanese Americans from their homes. The order stated:

“I hereby authorize and direct the Secretary of War, and the Military Commanders whom he may from time to time designate, whenever he or any designated Commander deems such action necessary or desirable, to prescribe military areas in such places and of such extent as he or the appropriate Military Commander may determine, from which any or all persons may be excluded, and with respect to which, the right of any person to enter, remain in, or leave shall be subject to whatever restrictions the Secretary of War or the appropriate Military Commander may impose in his discretion” (Roosevelt 1942).

With this order, the military was granted the power to remove any persons considered a threat to national security. This statement used ambiguous language that could be interpreted however the Military Commander saw fit. While there was no specificity of who was to be excluded from these military areas, Japanese Americans were quickly identified as these individuals, and the west coast their area of exclusion, and racial prejudice skyrocketed. A series of proclamations soon followed, effectively confining and stripping away the rights of Japanese Americans (Smith 1995, 15).
President Roosevelt passed another Executive Order, 9102, to create the War Relocation Authority (WRA), a civilian agency which was designed to formulate a plan for the relocation of those in the areas singled out by the previous proclamations and to execute these plans. Staff employment, as well as securing funding for acquiring the property that would become the internment facilities, were part of the responsibilities of the WRA. This entity would ultimately oversee the forced removal of Japanese Americans from their homes (Adachi 2017, 420-422). On March 2, relocation began and about 120,000 people of Japanese ancestry were uprooted from their lives. Over half of them were American citizens (Smith 1995, 15).

**Assembly Centers**

Hundreds of thousands of Japanese Americans were removed from the West Coast out of what was called “the exclusion zone.” The proximity of the California coast with Japan and the large Japanese American population made it the primary focus of relocation (Hayashi 2004, 79). Before being moved to relocation centers, Japanese Americans were moved to assembly centers, hastily built sites to hold prisoners until the more permanent facilities were built (Burton et al 2002, 34). Those who would be sent to Amache were primarily held at the Merced Assembly Center and the Santa Anita Assembly Center (Iwata 2015, Linke 2020).

Santa Anita was opened from March 27, 1942 to October 27, 1942 (Linke 2020). The high school, elementary, and middle school institutions were the first to be created within the assembly center. There were 200 children who were of preschool age, up to the age of five years old, and a nursery was opened two months after relocation started to
There are not many resources in relation to the nurseries/preschools within Santa Anita. Media recordation had the first and only mention of preschools in the *Santa Anita Pacemaker* newspaper was on May 8, 1942. The issue states that a nursery school for children aged three to four would open and the department head would be Maki Kawakami (*Santa Anita Pacemaker* 1942, 2).

![Figure 1: View of Santa Anita Racetrack after barrack construction had been completed. Courtesy of the Library of Congress.](image)

There are a few more sources from The Merced Assembly Center that mention preschools. Of the 4500 people incarcerated at Merced, 1000 were children. This prompted the need for an educational system. The school that was created was opened June 10, 1942 and closed August 21, 1942. It was not mandatory that children attend. The conditions were harsh, with no space other than recreation hall buildings, with a lack of
The teachers were predominantly Japanese and it is noted that it took some getting used to by the younger children who were used to having white teachers (The Mercedian 1942; “Education Department” N/A, 1-6). According to a report by the Education Department, the grades associated with the teaching system were first grade and above. Preschool/nursery aged children are not mentioned. (“Education Department” N/A, 1-6). In the first issue of The Mercedian, published June 9, 1942, there is a notice that informs the opening of what is termed a “pre-nursery school” (The Mercedian 1942). It is acknowledged that the creation of this institution was from the ground up and a community effort was headed by Martha Takamura. 50 children were already enrolled at the time the article was printed. According to the article, “schools have begun in Wards A, B, C, and D and others will be started within the week. The children play inactive and active games, are entertained, are told stories, and sing.” (The Mercedian 1942). Books were donated by The Livingston Church.
The WRA created ten relocation centers: Granada, Manzanar, Tule Lake, Topaz, Heart Mountain, Minidoka, Poston, Gila River, Rohwer, and Jerome (Burton et al. 2002, 2). Many Japanese Americans were forced to regions of the country that were unfamiliar and with harsh living conditions. With limited personal belongings, all who were relocated were forced to leave behind most of their possessions and move into an unknown and frightening scenario with no indication of when or if they would return to their homes.

Relocation centers were permanent facilities for holding Japanese Americans.

“The relocation centers were designed to be self-contained communities complete with
hospitals, post offices, schools, warehouses, offices, factories, and residential areas, all surrounded by barbed wire and guard towers.” (Burton et al 2002, 40).

**Amache**

The Amache National Historic Site is located sixteen miles west of the Kansas state line near Granada, Colorado. The land had been primarily used for farming and ranching. Amache was classified by the WRA as a relocation center and was the smallest of these incarceration facilities (Harvey 2004, 81). The first arrival of incarcerees to Granada was on August 27, 1942. Construction was still in progress when the WRA began moving people in. According to a WRA report, just over half of the facilities had been completed (Nash 1942). Some areas were without electricity or plumbing and the central hospital was not complete (Harvey 2004, 74-77). The director of the WRA himself, Dillon S. Meyer, remarked on the terrible conditions (Wei 2005, 7).
The peak population of those incarcerated reached 7,318 a month after the facility was in use (Burton et al. 2002, 101). The layout of the relocation center was split into two sections, the living facilities, and the operational area. The operational area was occupied by WRA workers, evacuee assistants, and military police. The living facilities for the incarcerees contained twenty-nine blocks of living quarters and the other blocks were designated for schools, outdoor activities, communal spaces, and businesses. The entirety of the property occupied by incarcerees was surrounded by barbed wire with six guard towers stationed outside of the living facilities (Simmons and Simmons 1993). A residential block is defined as “two columns of six rectangular evacuee barracks along the eastern and western edges; a mess hall and an H-shaped combination laundry, bath,
and latrine building in the center; and a recreation building at the end of one of the columns of barracks” (Simmons and Simmons 1993, 8).

**Children’s Experiences in Incarceration**

While Japanese American relocation was traumatic for all that were incarcerated, it had a unique effect on the children. Children of all ages viewed what was called “evacuation” through a variety of experiences. Some were frightened, others were confused and did not understand what was happening, others viewed it as an experience of seeing a new place, and all struggled with the mixed feelings of being a child who was removed from everything they knew (Lindquist 2012, 6-15). It would have been difficult for the younger children to truly understand the magnitude of what was happening, but they were no less affected by the trauma.

The targeting of Japanese Americans had no limitations as:

“Even though the justification for the evacuation was to thwart espionage and sabotage, newborn babies, young children, the elderly and infirm, children from orphanages, and even children adopted by Caucasian parents were not exempt from removal … In all, over 17,000 children under 10 years old … were evacuated” (Burton et al 2002, 34).

Within Amache, about fifty-eight percent of those incarcerated were under the age of twenty (Simmons and Simmons 1993, 23). Children had a built environment that shaped their view of the world and their place within it. This was complicated by being raised in an incarceration camp. Parents and community members created an environment to teach their children and worked with what resources were available to them. Within these structures, children created their own mechanisms of understanding the world, however it began with the world that their elders shaped. Eleanor Casella states that “... inhabitants co-opted their surrounding material world to retain some measure of control.”
(Casella 2007, 3) Children were no different. Children became prisoners, all of them American citizens.

**History of the American Educational System and Preschools**

The American education system has a long and varied history. Dating back to the colonial era, the education of children and the development of the concept of “childhood” in America caused the country to reevaluate how children of various ages were taught, as well as what was considered vital education. According to Barbara Beatty, the American preschool movement was born out of the many revolutions that moved through Europe from the 1600-1700s and “the first institutionalized extrafamilial educational programs for young children grew out of communitarian social reform efforts” (Beatty 1995, 1). From there, “the Education Act of 1789 in Massachusetts established the first urban school system in the United States” (Pence 1980, 51). By the early 19th century, America began to move the education of young children to public institutions (Beatty 1995, 20).

Europe influenced the creation of preschool institutions from 1810 to 1865 (Pulliam and Patten 1999, 107). The first American preschool, then under the label of “infant school”, was in Boston in 1818. The institutions spread through New England and were soon included in elementary school systems (Pulliam and Pattern 1999, 107). According to Kristen Nawrotzki, “in much of Europe and North America, institutional forms of childcare and early childhood education (ECE) first emerged in response to processes of industrialization and concomitant societal upheaval in the nineteenth century” (Nawrotzki 2015, 150). The movement was focused on educating and reforming children of the poor, however the benefits of external education were recognized by the
upper class and there was talk of expanding the institution to encompass all children (Cahan 1989, 12). This is also corroborated by Kristen Nawrotzki, who states,

“some (development institutions), such as the infant schools in England and the United States, were projects of social control and benevolence intended to keep the toddlers of the poor and working class out of harm’s way and to imbue within them Christian morality and Protestant work ethics” (Nawrotzki 2015, 150).

There was a pause in the development of preschools when movements arose to reinforce the mother-care dynamic. Due to this controversy, early educational years were briefly, again, confined to the household (Pence 1980, 5).

Following World War I, schooling was perceived as an opportunity to increase the chance of elevated social standing within society, as well as an avenue for Americanizing immigrant children (Pulliam and Patten, 148). There was also a scientific component to the creation of nursery schools, an opportunity for scholars to study child development at that age (Beatty 2005, 263-265).

“Associated with colleges, universities, or training institutes, many early nursery schools were begun with the goal of producing scientific research, and served the children of well-to-do, well-educated parents who wanted their children to be educated in progressive, scientifically designed environments. Other nursery schools were begun as part of settlement houses, the urban communal organizations where social reformers lived and worked.” (Beatty 2005, 265)

Historically, the most common form of education within preschools was what is considered “kin and care”, an informal educational structure that was kept more intimate by schooling within a household or neighborhood (Pence 1980, 5). This concept of “kin and care” can be directly tied to how the preschools were structured within Amache and how the community came together to ensure the success of these institutions.
Amache School System

Schools were not a part of the initial construction plans for Amache. The WRA assumed that these structures would be built by the incarcerated, however it was said that there were not skilled enough carpenters and the work had to be contracted out after the facility was opened (Simmons and Simmons 1994, 22). The only permanent building that was allocated for education was the high school. The high school building, finished in early 1943, was the largest educational building at Amache and was in Block 10G (Figure 4). The elementary school and junior high were in repurposed barrack buildings in Block 8H (Simmons and Simmons 1994, 22). Following a tumultuous start, Amache eventually had a school system that included nurseries, elementary, junior high, and high schools. School officially opened October 12, 1942 (Amache Elementary School Quarterly Report 1943, 3).

Initially, there was controversy surrounding the creation of schools within Amache as the public of Colorado was against funding for education, especially in the camp. Most of this animosity stemmed from the fact that the educational infrastructure of Colorado was failing throughout the war and the construction of the high school at Amache would have been the most expensive building built in Prowers County (Wei 2005, 8-11). Historically, with the development of social rights, the right to education took shape within the legal system. According to Kirsten Scheiewe, “(social rights) entail the right to enjoy certain resources or infrastructures to be guaranteed by the State, typically in the fields of social protection, employment, health, education and housing” (Scheiewe 2015, 174). The right to education became a point of contention in the legal
system, a point that was thrust to the forefront when Japanese American children were held in an incarceration camp with their educational rights thrown into upheaval.

Residents of Colorado were of the mind that if their children in surrounding Colorado counties were suffering from a lack of education, so should the children at Amache. It was an absurd sentiment that fortunately did not prevent the eventual creation of a school system within the incarceration camp.

The elementary school was located within repurposed barrack buildings in block 8H and preschools were held in five recreation halls spread throughout Amache: 7K, 9K, 9E, 11H, and 11F. Caucasian teachers were brought in to continue the education of the children. Schools and their curriculums within relocation centers were prime avenues for
assimilating students. Concurrently, there was a generational reconnection within the families and many in the second and third generations were reintroduced to traditional culture by their elders (Starke 2015). Throughout this painful experience, families were able to create a livable environment. Children were incredibly resilient, making the best of a situation that caused complete upheaval. Blocks became neighborhoods as children began to play with one another in the spaces outside their doorsteps. Landscapes were changed to bring a sense of home to a prison (Clark and Kamp-Whittaker 2019, 157-184).

A school newspaper was created for school children to include art, poems, and news associated with sports and what they learned within their school throughout the school terms. Within these articles, children spoke about their experiences in the school as well as within their home life. As play was an important part of their day-to-day life and environment, multiple avenues of play are mentioned in various written works from the younger children, including those who were of preschool age (Appendix C). One piece specifically mentions the toys that were available to children in their preschool. In the block 9K nursery, Sammy Shinada wrote, “The boys have a sand box, truck, train and wagon. The girls have a playhouse, dolls, tables, chairs, beds, and dishes.” (Shinada 1944). It is also made clear that there are gendered toys that were available to this nursery. The boy’s toys are associated with the outdoors and vehicles while the girl’s toys are of a domestic nature. These toys reinforced the gender norms of the time period. Akiko Yagi, who was in grade 3C in 1944, wrote a poem about a playground swing that she enjoyed (Yagi 1944). Mayako Nagai of grade 6B wrote an editorial included in the Junior Pioneer that expounded on rules that she felt should be implemented for
playground swings (Nagai 1944). Included in the February 1944 edition of the Junior Pioneer was a lost and found notice from Kay Sugahama for a bean bag that had been lost on a playground (Sugahama 1944).

Amache Preschools

The primary school institutions that were first sanctioned by the WRA were for grade school-aged children. Preschools and nurseries were not the priority in the initial education system. The creation of these smaller institutions fell to the community, primarily the mothers. While parents in the assembly center had the responsibility of establishing these institutions, the WRA assisted in the creation of preschools and nurseries in the incarceration camps. “In addition to the elementary and high schools, the WRA (wherever possible) will assist the evacuee residents in establishing day nurseries for children of preschool age and will furnish facilities for adult education courses” (War Relocation Authority 1943, 8).

“Day nurseries for children of pre-school age were opened at all centers except the very newest ones during the summer months. The opening of these nurseries enable many of the younger mothers to accept jobs and replace men who had left the centers on sugar-beet employment. Teachers were recruited from the evacuee population and many had acquired a high degree of proficiency before the summer ended.” (Nash 1942).

Recreation halls were spaces with rotating purposes. From places of worship to activity centers, some were converted into preschools (Simmons and Simmons 1994, 5). According to the 1942-1943 Amache Elementary School Handbook, preschools were located in the 7K, 9K, 11F, 11H, and 9E recreation halls. The teachers and assistants were primarily Japanese (Amache Elementary Handbook 1943-1944). The 7K, 9K, 11F, and 11H recreation halls were in use at the end of 1942, however the 9E recreation hall
was not yet partitioned (Amache Elementary School Quarterly Report 1942, 1). The rec
halls were identifiable from the barrack buildings by their smaller size and entrances on
the end of the buildings (Figure 6).

The section of the recreation hall that was reserved for the preschools was 20 by
80 feet (Elementary School Pre-school Department Amache Colorado 1943, 1). The dirt
floors were covered with red bricks (Figure 7). Windows lined the walls and there was
one pot belly furnace within the area specifically set aside for preschools to heat the
building in the winter. According to my interview with Carlene Tanigoshi Tinker, in the
11F recreation hall there were cubbies that lined the walls where the children would keep
their blankets for naptime (Tinker 2021). The following photo also indicates that there
were wooden tables and chairs:

![Image](image.png)

Figure 5: Milk and graham crackers being served to nursery school children in a
block recreation hall. Courtesy of Denver Public Library Special Collections. Photograph
by Tom Parker.
From 1942 until the close of Amache, there were reports and records kept by the Elementary School Department. Due to these records, the structure of this institution can be understood. The preschools were specifically placed within five boundaries so that children in each section would be within acceptable walking distance (Figure 8) (Amache Elementary Handbook 1943-1944).
By 1943, there was a more organized structure to preschools/nurseries. According to a report in 1943 from the Pre-School Department,
“The center is divided into five sections or areas, depending on the population of preschool aged children. The ages of children attending nursery schools are three and four years. There is one school in each of the five areas. The children are registered prior to their entrance in the nursery school.”

There is also record that the locations were chosen “in such a manner that none of the children had far to go in attending school” (Amache Elementary School Annual Report For The Period Ending June 30, 1944).

Objectives of the nurseries were listed as follows in the preschool department guidelines from Spring 1943 (Elementary School Pre-School Department Amache, Colorado 1943, 2):

- Physical Development
- Health
- Safety
- Motor Development
- Nutrition
- Rest
- Cleanliness
- Intellectual Development
- Stimulating Environment
- Language and Concept Development
- Experiences
- Emotional and Social Development
- Emotional Stability and Emotional Control
- Cooperation
Proper Attitudes

In order to prepare the preschoolers for elementary school education requirements, students would learn:

- Variety of meaningful ideas
- Vocabulary
- Good pronunciation and clear speech
- Enjoyable experiences with books
- Use of simple English sentences
- Have accurate ideas for good thinking
- Learn to follow directions and keep things in mind
- Practice in seeing how things are alike and how things are different
- Hear sounds that are alike and sounds that are different.

They also listed what they considered “don’ts” for parents that they felt would contradict what the teachers were trying to teach in class:

- Do not teach children to say the alphabet
- Do not try to teach children to read at home
- Do not teach children to count without always having things to count.

Report cards were also distributed to parents to chronicle the observations that teachers recorded about each child. The comments made on these documents allows for us to understand what teachers were observing from their students and how teachers interpreted them based on the areas of interest. Most of these qualities were evaluated
Based on basic ideas of how children were developing certain skills and were not too in-depth. It appears that most of these qualities were based on socialization and what was considered “good” behavior, as well as artistic inclinations. (Naguchi 1942).

Figure 9: Gary Fujita’s 9K nursery school report card. The date on the document indicates that he was one of the first group of children to attend the school as the first opening date for the preschools was October 12, 1942. Courtesy of Gary Fujita and the DU Amache Project.

These areas were:

- Self Reliance and Co-Operation
- Range of Interest
- Language Development
- Motor Development
- Social Relations
- Emotional Control
• Music

• Art

It is also important to note that attendance to preschool was not mandatory, however the class sizes were large (Amache Elementary Handbook 1943-1944). This indicates that many families chose to send their children to school. With the input of families and the WRA, preschools seemed to have more flexibility and connection to the community than the other educational structures. However, a more stable educational model was implemented for children and preschools became permanent institutions within Amache.
Chapter Three: Theoretical Framework

Introduction

The experiences of children at Amache is a nuanced and complicated subject that needed to be viewed through multiple avenues for a well-rounded study. I pulled from various disciplinary and theoretical frameworks to inform my research and methodology. I also refer to past research that has been conducted at Amache. Understanding how a project can affect communities that are directly associated with a site or an event was imperative to my work, therefore I made sure to reference the literature on community and collaborative archaeology. The basis of my archaeological research was directly tied to material culture, its meaning, and its relation to the landscape, therefore it was important to include theoretical and disciplinary work that referenced how these frameworks can be utilized in archaeology and anthropology. The archaeology of childhood and the archaeology of confinement, removal, and incarceration are disciplinary frameworks that directly informed my understanding of conducting research at a site that has the unique conditions of children’s experiences in what was essentially a prison. To gain an understanding of the Japanese American experience in America as a whole before and during incarceration, it was also important to understand the Japanese diaspora and the nuances of individuals who moved from their homeland to start a new life in another country that had different cultural values and norms. The first generation would have had different experiences than their children who had a dual identity that
would manifest itself in the material culture of Amache. Practice theory was also useful in understanding this, as individuals who were incarcerated at Amache had their entire way of life completely transformed. They would have had to develop new practices in a remote environment, while still being influenced by their previous lifestyle and practices. The ingenuity of this community can be seen through how these practices left their permanent mark on the landscape.

**Japanese Diaspora and Transnationalism**

The first theoretical frameworks that I will discuss are the Japanese diaspora and Transnationalism. It was evident that diasporic and transnationalism studies, particularly related to Japanese Americans, were imperative to my research. Douglas Ross gives a succinct definition of the similarity between diasporic and transnationalism concepts and their differences:

> “Diaspora and transnationalism are closely related but distinct concepts, with the former focusing on the migration process and the establishment of collective identities rooted in a shared past, whether or not there is (or can be) any ongoing contact with a physical homeland. Transnationalism, in contrast, emphasizes the ways migrants, individually or collectively, negotiate ongoing and competing relationships with both home and host societies” (Ross 2013, 31).

Japanese American incarceration is just one facet in the broad history of Japanese immigration and the communities that arose across the world, as well as how their identities have transformed over that history. The Japanese Diaspora is primarily considered an “economic diaspora,” meaning that the motivation behind immigration was initially an economic and business decision (Tsuda 2012, 86). When Japanese Americans were forced into incarceration camps, the diasporic movement changed, becoming one of removal. This then shifted once again when they were able to rebuild their lives. While
there was already a disconnect to their original homeland after immigrating to America, they were then removed from the life that they had created within this new country and lost so much of what they had built for themselves.

According to Koji Lau-Ozawa and Douglass Ross,

“Diaspora, like the related concept of transnationalism, offers an alternative to nation-based perspectives on migrant communities whose lives and identities are fluid and span national and cultural boundaries in complex ways, while also being grounded in a sense of place” (Lau-Ozawa and Ross 2021, 578).

Studies of the Japanese diaspora, in relation to incarceration camps, show certain generational cultural practices continued in the camps. Sumo wrestling, traditional dances, sake brewing, and gardening techniques are just a few of the examples of how incarcerees held onto their cultural traditions as well as passed them on to the next generation (Starke 2015; Driver 2015; Shew 2010; Garrison 2015).

The use of diasporic studies within archaeology, specifically the Japanese diaspora, is the focus of Stacey Camp’s article “The Future of Japanese Diaspora Archaeology in the United States.” She also touches on collaborative archaeology and how it is forced to reflexively engage with community stakeholders and work towards a goal that is not purely academic or analytical. She states, “Archaeologists must take note of the agendas defined by stakeholder communities by considering how we might align our archaeological research questions, field methodologies, and cataloging procedures with community interests” (Camp 2020, 878). This aligns with another framework that I included in my work, community archaeology.
Community Archaeology

Through each step of my research, it was important that I identify and practice the highest level of ethical behavior. Frameworks for employing community and collaborative archaeology were imperative for this project. Historically, collaborative and community archaeology was rarely practiced, however, ethical and collaborative practices have become more commonplace within archaeological work due to activism, legislations, and movements to decolonize the discipline, and an overall realization of the unethical practices that the discipline was born from (Atalay 2006; Colwell-Chanthaphonh and Ferguson 2008; Tuck 2009). Historically, archaeology has been about the archaeologists “informing” the public and communities of their history, falsely claiming to be the overall authority on another’s history. Community archaeology works to break that cycle by working with the community stakeholders to inform the interpretation and planning of projects, maintaining their rightful stake in how their history and culture are portrayed. Working with the community can also impact how research is conducted, creating a well-rounded and more ethical practice of including traditional knowledge, oral histories, and ensuring that anthropologists are not the only voices in relaying cultural history (Colwell-Chanthaphonh and Ferguson 2008, 14-15).

Community archaeology is the cornerstone of the DU Amache Project and my own research (Clark 2019). Without the input of the Japanese American community, survivors, and their descendants, the story and history of Japanese incarceration would not be as well-known as it is today. They refused to let the painful history be buried or forgotten. Anthropologists and archaeologists are just one component in keeping these events transparent and in public focus. Not all collaborative projects and their methods
are the same, as mentioned by Colwell-Chanthaphonh and Ferguson. They state, “while each project along the ‘collaborative continuum’ is consequently unique, all move the discipline of archaeology toward a more accurate, inclusive, and ethically sound practice” (Colwell-Chanthaphonh and Ferguson 2008, 1-2). Collaboration is an open dialogue and these practices vary from project to project. To keep the community stakeholders informed and involved in the various aspects of a project, the methods will vary from project to project. However, it is important to be cognizant at all times of best practices under collaboration.

With such an emotionally charged project, it was important to me to keep the final message of my research one of resilience and connection. In doing so, I was informed by a theoretical framework that I hope presents itself throughout my work. I incorporated the methods of Eve Tuck’s damage-based vs. desire-based research. Originally from the Aleutian Islands in Alaska, she identifies how language and academic intent has historically negatively affected marginalized communities, including her own (Tuck 2009, 409). She recommends a shift from a damage-based narrative, what she defines as “research that operates, even benevolently, from a theory of change that establishes harm or injury in order to achieve reparation” (Tuck 2009, 413). Victimization can deflect from the resilience and fortitude of individuals within a persecuted community. She poignantly states that, “after the research team leaves, after the town meeting, after the news cameras have gone away, all we are left with is the damage” (Tuck 2009, 415). To combat this effect, Tuck recommends what she terms desire-based research. She states, “desire-based research frameworks are concerned with understanding complexity, contradiction, and the self-determination of lived lives” (Tuck 2009, 416). Ingenuity and methods of
adaptation should be the focus of this research, allowing the agency of the individual to shine through. The Japanese Americans who were incarcerated at Amache and all other incarceration camps were not faceless individuals. They were people who had their own lives, relationships, dreams, and futures. As mentioned previously, some of the individuals who are the “topic” of this research are still living. Their descendants still grapple with the trauma that their families faced. Within my work, I chose not to focus on the damage caused by the traumatic experience, but how incarcerated Japanese Americans persevered in the face of this trauma and created a community.

Following the processes of the aforementioned authors and their works, it was important to include multiple ethical codes put forth by archaeological and anthropological institutions. The ethical principles promoted by the Society for American Archaeology are one component of this project. The SAA guidelines are essential to retaining a professional and compassionate position (Society for American Archaeology 1996). While my research can benefit the academic community and add to the knowledge of childhood experiences in Amache, my commitments are to the survivors and descendant communities. It was important to be cognizant of this fact as well, as many of the children studied are still living and have a continuing personal relationship with the site and associated research. This was something to always be mindful and respectful of. I also drew from the Society for Applied Anthropology ethical guidelines, especially the principle that:
“anthropological work must similarly reflect deliberate and thoughtful consideration of potential unintended consequences and long-term impacts on individuals, communities, identities, tangible and intangible heritage and environments” (Society for Applied Anthropology ND, Retrieved February 1, 2020).

The study of children and their experiences within the difficult history of incarceration camps can be emotionally charged. The information that is conveyed within this research has a direct impact on the people who were interned at Amache as well as their descendants. Community archaeology is just that, archaeology for the community. I conducted this work to contribute to the overall understanding of the site and to continue to expand on the experiences of the individuals at Amache. It was important to be cognizant of my positionality in this larger framework and that, ultimately, I was a public servant in this project.

**The Archaeology of Childhood**

With children being the focus of my research, I drew on past works that focused on childhood archaeology and studied the history of this subdiscipline. While children have often been conspicuously absent from the archaeological record, there has been a movement in recent studies to shed light on the experience of childhood throughout history (Kamp 2006; Baxter 2005; Kamp-Whittaker 2010; Lillehammer 2015). This movement has created what is considered the archaeology of childhood. Digging deeper into the experiences of children socially in their day-to-day lives opens up an understanding of their place within a culture as well as their identities. The individual is often viewed in the context of the community as a whole. It is important to understand the context of these children’s lives and to not allow previous conceptions to impact the interpretation of artifacts (Baxter 2005).
How childhood has been defined varies across cultures, however there is almost always a transitional moment and difference between children of a certain age that sets them in a different group than their adult counterparts, whatever that may be (Crawford et al 2018, 11-13). It can be difficult to see children in archaeological studies, particularly in prehistoric cultures, but through more thorough analyses and the shifting of anthropological lenses, children are much easier to identify in historic archaeology.

One of the main focuses of childhood archaeology is knowing and understanding the agency of children within society. They are active agents within their world and influence certain functions of culture and society, just as they do today. However, while there are connections that can be made between current societies and past societies, it is important to be cognizant of how preconceived notions can influence interpretation. Misinterpretation of the archaeological record was abundant without acknowledging how children fit into and affected it. Sally Crawford argues that though there can be difficulty seeing the child behind the material culture and that assuming adult agency over the child’s position can be problematic (Crawford et al 2018, 8). While there may not be an obvious material indicator of children’s presence, they are often there.

It is a fine line that must be walked to make the past relatable, but also unique to the time and culture. Grete Lillehammer makes the case that viewing children in archaeology has been stalled in the theoretical framework and has not become solidified in practice. She states that it is seen more as a “curiosity” than a serious avenue of study in archaeological practice and when they are portrayed in studies or collections, it is through the lens of the adult pathways (Lillehammer 2015, 82). While it is difficult to
completely separate the child from the adult as they both influence the other, it was my intention that the central focus of my project be on preschool-aged children and how their presence impacted the environment.

The Japanese American incarceration sites have a wealth of material culture that is related to children, particularly toys. Not only are these objects found at these sites, but there are various primary documentation and oral histories that show what life was like for children and how they influenced life within these incarceration facilities. What makes Amache and the toys recovered at the site unique is that there is an opportunity to see children’s preferences and what objects were special to them. Archaeological crews have documented many toys that must have been purchased before removal and that were likely brought into Amache by children or their parents (Niemann and Orlowski 2017; Debard 2017). With the stipulation that families could only bring what they could carry, these toys must have been incredibly special to their owner. They are at the site because of a child’s choice and their relationship to the object.

Materiality, The Landscape, and Children’s Spaces

Institutional confinement has many markers that are the same across cultures and history, however each location and context is different due to the individuals who were confined. Eleanor Casella states that:

“… while the built landscapes and institutional objects associated with internment create a powerful force of uniformity, those who experience internment simultaneously create signatures of diversity by using the material world to maintain a sense of personal self and communal belonging” (Casella 2011, 289).
Personal practices and how individuals lived their day-to-day lives in relation to the landscape and connotations related to places can be viewed by the material that is left behind.

The landscape and how it relates to social dynamics played a primary factor in my research. Suzanne M. Spencer-Wood uses the term “powered cultural landscapes” to explain the relationship between power and landscape (Spencer-Wood 2015, 498). While her work is specifically viewing the relationship between power and landscape from a feminist perspective, her theory draws on key frameworks that are also applicable to the study of Amache. The creation of public gardens and the planting of trees to shade the preschools by the community, as well as the distribution of these spaces and how these spaces affected the resident of preschool blocks can be analyzed through this theoretical lens (Spencer-Wood 2010, 515-519).

Dozier’s study of what she calls “adult-specific material culture” is an avenue that may be worth pursuing at Amache (Dozier 2016, 60). While this can be a difficult point of study and leaves ample room for theory and little concrete evidence, there is no denying that children use whatever is available to them for entertainment, including objects that would normally be associated with an adult. Dozier mentions the saying “kids will play with anything” (Dozier 2016, 60). This would especially be true for children who had limited access to toys.

It is important to search for the presence of children within preschool blocks, but not necessarily only in these areas. According to Wilkie, “Children’s spaces can occur both within and beyond architectural structures” (Wilkie 2000, 110). Preschools would
have been an area that was commonly associated with play and where children would have been comfortable engaging in these activities. However, children are known to create their own spaces for play as well as socialization. Just as children played in neighborhoods and various other spaces, preschools would not have been the only spaces where children were playing at Amache.

Figure 10: Child flying kite in background of photo. Courtesy of Gary Ono.

Inscribed spaces analyzes how experiences are held in a place and how space is utilized and transformed by those who inhabit it (Low and Lawrence-Zuniga 2003, 13). Nelle Moore, the Director of Instruction, wrote an article in the Granada Pioneer that urged parents to use scrap material to make playthings. From leftover lumber to pieces of yarn, the message was to create toys from the limited materials that were within access (Moore 1944). While the message comes off as tone-deaf (it was not the Japanese Americans who were at fault for not having the means for toys), it does provide an
avenue of viewing the creativity of parents and their children to provide an avenue for play.

Figure 11: Children playing in a makeshift playhouse. Courtesy of DU Preservation Society, Namura Collection.

The power of the child’s imagination transforms inanimate objects into metaphorically living, breathing entities. A small tea set and stuffed animals becomes a tea party with friends. A stick can become a sword. A pile of scrap wood becomes a fort. The transformative nature of the imagination creates a new life and context of objects. When is an object considered a toy? The meaning attributed to it by the child ultimately determines how the object is defined. Crystal A. Dozier creates two categories for categorizing these objects: “formal (child specific) material culture and informal (adult specific) material culture” (Dozier 2016, 60). While she makes it clear that it can be difficult to determine the meaning behind informal material culture in relation to children, it cannot be ignored that children’s interaction with objects that would be
considered part of the adult’s sphere can be transformed into toys given the child’s intent (Dozier 2016, 60). The life of objects are affected not only by the adults in a society, but by the children as well, even if the object was initially not made for children.

Sally Crawford summarizes that:

“anthropologists have suggested that children’s play can be divided into two kinds: adult-structured play, in which the adult supplies the toys and the children are guided in play conforming to adult agendas, and child-structured play, in which children’s play and toys are created by the child, independently of adults” (Crawford 2009, 60).

Crawford continues to explain that looking from the adult’s point of view in analyzing toys leaves room to ignore the fluidity of how children themselves perceive these objects. Culture, socialization, and age can affect how each child interacts with toys (Crawford 2009, 61-62).

The creativity of children’s play within Amache is documented by historic photographs (Figure 11) and mentioned by a child in the Junior Pioneer school newspaper: “We made patterns of boys and girls with sticks. We made them running, dancing, skating and somersaulting” (Tashima 1944). This is an example of the children creating their own toys and form of play by incorporating materials from their surrounding environment.
The children's imagination transformed sticks into material used for play. Toys can also be considered an avenue for creating social relationships. A gateway for creating friendships and playmates, the toy is the key to the interaction between the children. According to Brian Sutton-Smith, “… children appear to develop play skills through play, which enable them to go on playing with other children, thus substantially increasing their happiness” (Sutton-Smith 1997, 43). A tea set can instigate a moment between children who imagine themselves with real tea and snacks. Marbles bring a competitive edge to play, allowing for children to strategize and play competitively against each other. Toys are an avenue of identifying the presence of children and can be used as a method for understanding the juxtaposition between the material culture recovered in blocks with preschools and those without. Play is an important aspect of a child’s cognitive development and would have been important in how preschools were structured.
The material record of children is spread across Amache, as well as other incarceration camps, in the form of toys. Archaeological surveys and excavations have rediscovered objects associated with play in many areas of Amache (Clark et al. 2010; Clark and Driver 2012). There is evidence of children bringing their own toys into Amache from their homes. For example, a small metal toy airplane was found during an archaeological survey in block 11F, which was a block that contained a preschool. Compositional analysis with a portable x-ray fluorescence instrument determined that the toy was made of steel and would not have been made during the war when metal was being strictly rationed (Niemann and Orlowski 2017). A child bringing this object shows the strong connection between child and toy. It brings a sense of true “specialness”, especially when families were only allowed to bring so little personal possessions. The
power of play and the relationships that children had with their material possessions is an avenue that can be explored in future research of Amache.

Figure 14: Children playing on seesaw. Courtesy of Mitch Homma.

Archaeology of Confinement, Removal, and Internment

Another disciplinary framework that informed my research is the archaeology of confinement, as well as the archaeology of removal and incarceration. These specific subdisciplines of archaeology can often be overlooked, however, these are incidences that have occurred throughout history. Confinement, removal, and internment have different connotations, but they can occur concurrently.

The Archaeology of Removal in North America combines studies of systemic removal of cultural groups over the course of history in North America. Terrance Weik provides an encompassing definition of removal, stating that:

“removal often involves the suffering of communities grappling with disintegration of social ties, the transformation and imposition of identities (e.g. group label), disorientations of personhood, uncertainties about resettlement, doubts about intention of agencies of host societies, ambiguities of repatriation, and grief over losses (e.g. homes)” (Weik 2019, 5).
Removal causes emotional trauma and psychological damage through the various ways that agency is removed from individuals. This is also common in internment. The work *The Archaeology of Internment* compiles multiple case studies to analyze internment throughout history from an archaeological perspective. Gabriel Moshanska and Adrian Myers define internment as “the practice of organizing material culture and space to control and restrict the movement of a person or a group of people” (Moshanska and Myers 2011, 2). The *Archaeology of Institutional Confinement* places social power as the driving factor behind this imprisonment. According to Eleanor Conlin,

> “whether defined as an oppositional relationship of domination and resistance, as an embodied engagement with institutional regulations and rituals, or as a subversive means for minimizing the everyday pains of confinement, social power infuses the modern institution” (Conlin 2007, 2).

Combining the studies that have been conducted under these subdisciplines provided methods that informed how to best research and interpret archaeological sites that are charged with such difficult histories. Through analyzing the multiple instances of incarceration, a better understanding of how these moments were allowed to happen, the experiences of those who were interned, and the repercussions of these actions can contribute to the study of Japanese incarceration facilities.

**Practice Theory**

Following with the theme of agency of the individual, I recognized that practice theory was a useful framework for this study. Pierre Bourdieu was the first to outline the idea, a direct challenge to structuralist theory (Jenkins 2006, 11-23). Using this theory, Lightfoot states that:

> “the ordering of daily life may be observed in archaeological contexts by examining the arrangement and use of space in the built environment (both
intramural and extramural areas), the organization of domestic activities (e.g. food preparation, cooking, tool productions, and maintenance), and the spatial pattern of refuse disposal” (Lightfoot et al 1998, 201).

This frame of thinking can be applied to how children interacted with their new built environment, as well as their parents when making the space more hospitable.

What makes this site unique is how repetitive practices of day-to-day life changed from the context of when the individuals who were incarcerated were living their lives back home and how these practices changed when their access to certain materials and their new environment changed when they were at Amache. The nuances of Japanese Americans and their cultural duality coupled with the forced removal from their daily lives to what was essentially a prison created new practices to effectively survive and thrive in a new environment.

**Previous Research**

In 2003, the first archaeological survey was conducted at Amache (Carillo and Killam 2004). Three years later, in 2006, the site was designated as a National Historic Landmark. The site’s integrity was high as indicated by the preservation of the landscape with building foundations, roads, and a cemetery area intact (Simmons and Simmons 1993). A significant portion of research at Amache directly coincides with the University of Denver (DU) Amache Project. In 2008, Dr. Bonnie Clark led the first field season to teach DU students field methods in historic archaeology and museum studies. Students were taught to conduct archaeological methods of survey, excavation, and GPR, as well as combining oral histories, primary resources and community input. Those who work at Amache have been able to uncover many stories of those who were relocated. An artifact analysis is included in the Historical Archaeology class at DU that is taught by Dr. Clark.
the following quarter after the summer field school (Clark 2010; Clark 2012; Haas 2014). In 2008, toys were an important recovered artifact type and patterns were revealed regarding what type of toys children were playing with (Clark 2010), a finding that has continued in each subsequent field season.

Previous theses that I drew heavily on are April Kamp-Whittaker’s “Through the Eyes of a Child: The Archaeology of World War II Japanese American Internment at Amache” and Zachary A. Starke’s “Wrestling with Tradition: Japanese Activities at Amache, a WWII Incarceration Facility.” Kamp-Whittaker gives a thorough analysis of the association between children and the physical, social, and political landscape (Kamp-Whittaker 2010). She developed a categorization of types of toys found at Amache and the historical and social connotations behind them (Kamp-Whittaker 2010, 116-131). This information is helpful in understanding the distribution of toys and how it relates to the children's experiences and education in Amache, as well as the overall experiences of children at Amache specifically. Starke’s thesis provides extensive research into the generational involvement within families in Amache (Starke 2015). His approach to studying the avenues of relationships between parents and their children gives a useful analytical approach to the parental strategies that were implemented through toys and what values they were trying to convey.

The experiences of children within other Japanese incarceration camps, such as Manzanar and Topaz, have also been studied. Michael O. Tunnel and George W. Chilcoat wrote a book based on the diary of a child interned in Topaz. The combining of a primary resource and a child’s own words with other sources shows what life was like
for a child as well as their perceptions of their life and what they considered important to write about (Chilcoat and Tunnel 1996). Photos, oral histories and historical background were compiled in a work depicting the life of children in Manzanar. Heather C. Lindquist included a section on toys and the memories of children who had been incarcerated. They remembered playing marbles, and there was recollection of a toy library where children could rent out toys when their family could not afford to buy them on their own (Lindquist, ed. 2010, 48-53). Using these works as a reference for understanding the spatial patterns of toys across Amache created a well-rounded framework for my own analysis. With such a complicated and important moment in history, it was important for me to consult various avenues of study in relation to the many theoretical and disciplinary works that were related to my thesis research. Archaeological analysis should always employ different theoretical works and be informed by previous research and analytical methods.
Chapter Four: Methodology

Introduction

The primary goals of this project are to expand on the experiences of preschool-aged children in Amache and to discern if there are any significant differences between blocks with preschools and those without, in relation to artifact distribution and the modified landscape. Combining various archaeological methods and spatial technology, as well as ethnography, oral history, and collaborative practices, created a robust study of the preschoolers and how their presence impacted the modification of the cultural landscape.

My research design was informed by the questions:

- How were the preschool/nursery institutions created? What was its design?
- What were preschooler’s experiences within Amache?
- What are the spatial differences between blocks with preschools/nurseries and those without?
- Is there a difference in toy distribution in blocks with preschools/nurseries and those without?
- Was the landscape altered differently in blocks with preschools compared to blocks without?
Each block that housed a preschool was identified by historic documentation and oral histories. After identifying the study areas, I then used the following methods and resources to conduct my research.

**Archival Research**


At the time Amache was open, newspapers were one of the primary ways that Americans would receive their news of the world as well as what was happening in their community. It is no surprise that community newspapers were created within assembly and relocation centers as incarcerated workers worked to keep each other informed on current issues within the facilities.

*The Mercedian* was a newspaper that was distributed by Japanese Americans in The Merced Assembly Center. The viewpoints here showed how nursery-type institutions were created by the children’s parents to allow for some semblance of a structure for the supervision of children. There were few issues that referenced preschools, but those that did gave insight into what day to day life was like for children in this environment (*The Mercedian* 1942). *The Santa Anita Pacemaker* was a similar periodical for the Santa Anita Assembly Center. There were not as many issues of this newspaper and there was only one mention of the nursery facilities (*The Santa Anita Pacemaker* 1942, 2).

Amache had two newspapers, *The Pioneer* and *The Junior Pioneer*. *The Pioneer* was predominantly made for an adult audience while *The Junior Pioneer* included contributions from children. It was more of a school newspaper than for the broad
community. Because the school children contributed to the paper, their words are forever immortalized in print. Within these words they described their experiences in the classroom, their relationships with their fellow classmates, and how they spent their free time. The Densho Digital Repository had digitized the February, April, and May 1944 issues of *The Junior Pioneer*. What made this newspaper particularly useful for this project was the fact that they included testimonials from children as young as those who attended nursery school. It showed what aspects of preschool were important to them and allowed them to give voice to their experiences.

**WRA Documents**

I mainly consulted WRA documents for determining when preschools/nurseries were under the purview of the WRA and when the teachers and students were under that particular structure. These documents also showed the requirements for the curriculum for children as well as outlines for how parent’s education should coincide. Due to the image that the department was trying to create to make it more palatable to the public, these resources were used more for understanding the working of the preschool organization and the non-individual aspects of how Amache was laid out. For more interpersonal information, I referred to primary sources that were either directly from Japanese Americans who were held at Amache or from those who worked there.

**Educational Documents**

School reports for each quarter were printed for the parents and explained the makeup of the preschool, how many students were enrolled. There was also a document that listed books for nursery school teachers to read to increase their knowledge of working with children of this age ("Books Used in the Amache Pre-School Department N/A, 1).
Documents that were commonly saved were the children’s report cards. These resources were particularly useful in understanding how the children were evaluated within this educational structure as well. They also provided an avenue for seeing children’s behavior and personalities when they were at school, how they interacted with their teachers, each other, and the curriculum (Naguchi 1943). As parents continue to do, many parents of children in nursery school kept the documentation of their progress as a memento of how their children were doing in school and to preserve what they were like at that age.
Photos

The DU Amache Research Project and the museum archives have various photo collections that have been compiled from research and donations over the years. The photos I included were from personal collections, the DU Preservation Society Collections, Amache Preservation Society, Denver Public Library Special Collections, and various online repositories. These photos have been used throughout my work to illustrate how children interacted with space within Amache as well as snapshots of
preschoolers and their experiences within the recreation hall preschools. Fortunately, I was directly involved with the project and field work, which provided me the opportunity to take some of my own photos of the 11F recreation hall to juxtapose against the historic photographs.

**Oral Histories**

To include the children’s voices, I studied transcripts of oral histories as well as interviews from survivors who were children at the time. In June 2021, I interviewed Carlene Tanigoshi Tinker, who was three years old when she arrived at Amache. She was my sole oral history interview, however her gracious meetings with me gave me invaluable information to further expand on the experiences of preschool-aged children at Amache. That summer, a field crew, including myself, accompanied Carlene as she revisited her block in 11E. She gave a moving speech about her experiences during and after Amache and how she has viewed the experience throughout her life. She also showed us the path she walked from her block to the 11F preschool that she had attended as a child. She remembered the way all those years later. IRB is typically not required for conducting oral history and the goal of the interview was to better understand the archaeological data rather than Carlene’s experience. Still, informed consent is good practice and a form that allows this data to become part of my research and the DU Amache archive was filled out and signed by Carlene Tinker and I under the umbrella of the DU Amache Project (Appendix A).
Archaeological Data

9K Field Data Collection (2021)

The 2021 field season for the DU Amache Project included the survey of block 9K, resurveying a sample of units in one of the primary dumps, field checking the GIS tree layer, and demoing the survey collection system within the new database, OCHRE (Clark and Kamp-Whittaker 2021, 4-5). The survey data collected in block 9K directly tied into my thesis as it was the location of one of the preschools. To conduct a pedestrian survey of an individual block, it is important to know the boundaries of these administrative units which were laid out in relation to magnetic north. We marked the boundaries of the block by delineating the boundaries with the roads as well as where the block boundary met the connecting block by using existing geospatial data and measurements from recordation of previous boundaries (Figure 16). With boundaries determined, we proceeded to conduct a pedestrian survey. The crew was spaced at two-meter intervals and tallied items that fell under the criteria for this method of recordation (“Survey Protocol for Crew chiefs, Summer 2021” 2021, 1-2).

Figure 16: Example of mapping block boundaries from the Summer 2021 Crew Chief Survey Protocols.
Diagnostic artifacts were flagged and given a field artifact number and analyzed in the field using tablets with a project specific database through the Online Cultural and Historical Research Environment (OCHRE). All information that could be gleaned from the artifact was recorded in the database entry as well as attached to relevant field photos. Toys are included in the diagnostic category. Marbles are predominantly analyzed in the field and other diagnostic toy types are either part of “catch and release” or collected and taken back to the lab. The term “catch and release” refers to the collection of an artifact for further analysis and its return to its place of origin on site. The mapping units for artifact analysis were Surface Pros and the mapping units that were used with ESRI and an EOS Arrow system that collected data on Apple iPads. The use of Surface tablets for OCHRE and Apple iPads allowed for collecting geospatial data and conducting artifact analysis in tandem.

![Figure 17: 2021 field crew conducting a pedestrian survey in Block 9K. Photo credit Bonnie Clark.](image)

While recording FA’s, the crew was also working to identify potential features from artifacts concentrations. These features were flagged and the crew returned to the feature locations to record associated data and determine their boundaries. I was also
involved in the post-field processing, working in the lab cleaning and sorting artifacts, assigning lot numbers, and entering artifact data into the project database. In-depth identification and analysis of these artifacts was conducted by DU students for learning purposes (Clark and Kamp-Whittaker 2021, 7).

**11F Recreation Hall Monitoring**

In 2018, archaeological monitoring was conducted at the site of the 11F recreation hall to assess cultural material that may be affected by the reinstalment of the historic building. The archaeological firm that conducted the monitoring collected 15 artifacts that were considered diagnostic and delivered them to the DU Amache Collections. Various artifacts were found during this project, including toys. This directly coincides with it being a space for children. During my research, I analyzed these objects, assigned lot numbers, and added them to the OCHRE database. A table of all toys found in 11F can be seen in my analysis and the appendices, which includes those found in the monitoring project.

**Geospatial Data**

The University of Denver Amache Project has an extensive collection of GIS data stored in their ESRI database. Shapefiles that included the footprints of barracks, blocks, surrounding buildings, and artifact locations were used to conduct spatial analyses and create the maps included in this project. The data has been collected by students, volunteers, and crew members who have conducted surveys during the course of the project, as well as Jim Casey, a University of Denver alumnus and affiliated researcher, who also houses and runs the database of all the spatial data. Recorded within the GIS data is the geospatial (latitude and longitude) and block location of the artifact or feature,
type, and comments on the description of the resource. There are many other fields included that were not pertinent to my research, therefore I will not list them here.

Data mining and configuring that data to match the needed input to run certain analytical tools were the main time-consuming steps. This is a common occurrence for using any type of spatial data as raw data is rarely in the perfect format that is needed for in-depth analyses. ArcGIS Pro is outfitted with various tools that will run spatial analyses based on certain parameters and outputs. The spatial data that I specifically added to conduct my analyses were

- Barrack Boundaries: the spatial boundaries of each barrack within each block
- Other Building Boundaries: Includes boundaries of buildings that were not residential barracks, such as recreation halls, mess halls, bath houses, and administrative buildings
- Roads: Designated vehicle pathways through Amache
• Field Artifact (FA) Locations: Location of field artifacts that were recorded from 2008 to 2022
• Feature Locations: Locations of landscape features, such as gardens, ponds, and other creations by the Japanese Americans
• Tree Layer: Locations of trees that have been recorded at the site
• Excavation Points: Locations of units that were excavated at the site

For the barrack and other building boundaries, FA locations, and excavation locations, I specifically created new layers that were delineated by the identified block. I selected the features within these layers that were inside each block and used the “Make Layer From Selected Attributes” tool to export these features into new layers. Each new layer with features for blocks were in the format as follows:

Figure 19: Example of different feature layers within GIS analysis

I only included landscape features that were defined as a type, such as a garden or a pond. If the GIS metadata did not include the type, I cross-referenced the OCHRE database to fill in the missing data. Having all feature types sorted by block made it easier for me to create maps and have a clearer visual for analysis.
To frame my analyses, I first had to identify the locations of the recreation halls that were used for preschools. Based on maps and historic resources, as previously stated, the preschools/nurseries were in blocks 7K, 9K, 9E, 11H, and 11F. Having the locations was a point of reference off of which I could base geospatial data, demographic data, and field data. Survey information as well as artifact collections were imperative to understanding the distribution of artifacts and landscape features near the preschools and other blocks within Amache. Based on the field forms, the artifact database, and spatial data, I was able to fill in data gaps and correctly identify and sort FAs by their type.

I began with creating a map with GIS layers that portrayed the barracks, mess halls, recreation halls, and all of the artifacts found within blocks that had preschools. Each map for each block showed the spatial distribution of the artifacts and their type:

- Metal
- Ceramic
- Can
- Glass
- Other

Within the “Other” category, I was able to mine toys, which fell under that category, and create a separate layer that only portrayed toys.

I initially planned to compare all artifact types across the blocks, however the scope of that analyses was too large for my intended purposes. I then scaled my project back to only create maps for preschool blocks and to compare toys across blocks and preschools, with a short visual analysis of all artifact types for each preschool block. I
cross-referenced the OCHRE database with the geospatial data to ensure that I extracted all data associated with toy locations. There were some entries in both the OCHRE and geospatial database that had information that was missing but was included in the other database.

Another important aspect of my project was trying to find correlation between landscape features and toy locations to see if children interacted or had an impact on the placement of these features. The DU Amache Project had spatial data associated with the locations of trees, which had been planted by those incarcerated. I was able to compare these locations with the locations of toys in the form of a heat map. I could then see how toys were related to clusters of trees and how they were placed, specifically in relation to the preschools. I also conducted a brief demographic analysis to determine if there was an increase of preschool aged children near the preschools or if their residences were equally distributed across the blocks. Demographic data was provided by April Kamp-Whittaker and Salem Arvin, who compiled demographic data for most of the Japanese Americans incarcerated at Amache.

**Chi-Square Test of Independence and t-Test**

To determine if there was any statistical significance in the distribution of toys between residential blocks with preschools and those without, I used the Chi-Square Test of Independence. I recorded the counts of artifacts recorded during survey from each residential block, sorted the counts by type, conducted the test, and recorded the findings. It was important to separate the artifacts found from surface survey and those recovered during excavation, as that can skew that data. I also removed construction material from
the counts, such as nails and lumber. I did want to include a sampling of excavation data as it provides a different line of data to understand artifact distribution between blocks with preschools and those without as well as how they correlate with certain features. I graphed data from excavations in block 11F and 9L, which provided important insights into subsurface distribution within blocks as well as their relationship to certain features that were recorded within these blocks. I also conducted a t-Test as part of my demographic analysis to determine if there was a significant difference in the number of preschool-aged children in residential blocks with preschools compared to those without.

Previous Investigations

National Register Nomination

Cultural investigations began at Amache in 1996 with the Simmons and Simmons National Register Nomination form that included a broad historic background that continues to be utilized. Thomas H. Simmons and R. Laurie Simmons wrote a comprehensive report that argued for the nomination of Amache as a historic site. This report is the first official documentation of a cultural investigation into the site. The nomination was successful and in 2006 Amache became a National Historic Landmark (“Timeline” N/A). This source is an invaluable resource in that it has a comprehensive history and descriptions of the site all in one document.

Archaeological Investigation

The first archaeological survey was conducted in 2003 by Cuartelejo HP Associates, Inc. based out of La Junta and RMC Consultants, Inc. from Lakewood conducted an archaeological investigation of Amache, the first archaeological project at the site. The crew collected aerial photos, conducted pedestrian surveys and recorded
artifacts and the conditions of the built environment, and compiled a historic background from documentation (Carillo et al. 2004).

**National Park Interpretive Plan**

Through collaborative discussion with various stakeholders, The National Park Service developed an interpretive plan in 2007 of how best to present the site to the public. They delved into who would be their interpretive audience, what experiences visitors should have and what emotions should be presented, continuing stakeholder support, and site management. All of the research that has been conducted at Amache since then falls under the purview of this interpretive plan (“Granada Relocation Center (Amache) National Historic Landmark” 2007).

**DU Amache Project**

There have been field seasons conducted every two years since 2008, with the exception of 2020, which was cancelled due to the COVID-19 pandemic. To date, all barracks blocks have been surveyed except for 6E, 6F, 7F, 8E, 11E, and 12E. To understand the site as a whole and for methodology and guidance on how to conduct research at the site, I consulted the previous anthropological theses that had used Amache as the study area and were associated with my research. Dana Shew’s “Feminine Identity Confined: The Archaeology of Japanese Women at Amache, a WWII Internment Camp,” April Kamp-Whittaker's “Through the Eyes of a Child: The Archaeology of WWII Japanese American Internment at Amache,” Zachary Starke’s “Wrestling with Tradition: Japanese Activities at Amache, a World War II Incarceration Facility,” and Christian Driver’s “Brewing Behind Barbed Wire: An Archaeology of Saké at Amache” presented cultural traditional pathways as well as how Japanese American children of the time
navigated dual identities. The extensive work that has been conducted on this site by former DU students continues to inform future research and shed light on this complicated site and its impact on the people who were held at this site.

**Limitations**

**Documentation**

As preschools/nurseries at Amache were a sort of grassroots affair, there are not many resources that have survived the test of time. As research was being conducted, it became clear that preschool official documentation was lumped under the elementary school resources. While this provided difficulties in conducting research, it did create a new method of searching for these types of data that can be used by future researchers should they be searching for the same types of documentation.

**Small Dataset**

Toys have one of the smallest counts of the artifact types. This may not be a robust enough sampling to truly identify patterns through statistical or complex spatial analyses. Should more artifacts be recovered in future fieldwork, the findings in this project could change and be updated with a larger dataset.

**COVID-19 Pandemic**

The original research plan was to conduct field research in summer 2020. Dr. Bonnie Clark leads a field school every other year at Amache that is affiliated with the University of Denver. An excavation was to be conducted at the site of a possible playground as well as units being opened at the historic dump on the site. Due to COVID-19, the field school was postponed to a date beyond my intended graduation. However, Dr. Clark graciously provided me with the opportunity to conduct my own
survey of the dump in summer 2021. I had also planned on conducting interviews with Amache survivors during the Amache Pilgrimage and the field school. All Amache related events were cancelled with the field school, therefore the only point of contact for new oral histories were through my email that was included in the Amache Newsletter and on the DU Amache Research Project website. I was, however, able to conduct an interview with Carlene Tanigoshi Tinker, a survivor who routinely volunteers her time to the Amache field school. While the pandemic caused many considerable changes to my research, I was able to regroup and have a different, but related topic to my original research topic.
Chapter Five: Archaeological Analysis

Site Overview

Located just outside of Granada, Colorado, Amache was placed on a plateau that was created by the Arkansas River. The environment was harsh with hot summers and frigid winters. The wildlife consists of prairie rodents, mule deer, rattlesnakes, box turtles, and various birds. Native flora are predominantly plants that can survive in an arid environment, such as yucca, cacti, and short grasses (Carillo 2004, 6-10). The sandy silt that makes up the site provides a hospitable environment for excavation and screening through excavated dirt. The relatively dry climate of eastern Colorado and the Great Plains has created a prime environment for preservation. Another aspect that has led to the integrity of the site is the fact that Amache had little post-occupational use after it was closed in 1945. This makes it unique in comparison to the other sites of Japanese American incarceration. Many of the objects recovered are in situ and have not been touched since they were last used when Amache was open. The systemic survey of the site and collecting data block by block is unprecedented for these types of sites and adds to the integrity of the data and the interpretation of the site (Clark and Shew 2018, 807-808).
Figure 20: Total artifact distribution from surveys conducted through 2022. Data courtesy of the DU Amache Research Project.

Archaeological surveys have been conducted every two years since 2008. The recordation of preschool blocks has been spread over the breadth of the project with
Blocks 7K and 11H surveyed in 2012, 11F and 9E in 2018, and Block 9K surveyed in the summer of 2021 (Figure 21).

Figure 21: Map of Amache and the years each block was surveyed. Edited by Megan Brown to illustrate blocks with preschools (blocks delineated by a red line) and updated survey date for 9K. Source: The Tangible History of Amache, Phase VII: Archaeology Research Design and Methodology for Field Investigations, Granada Relocation Center (Amache) National Historic Landmark (5PW48), Summer 2021.

Blocks 6E, 6F, 7F, 8E, 11E, and 12E have yet to be surveyed. It should be noted that data collected in the future has the potential to add to or change the initial findings of this
project. Extensive geospatial data has been recorded for every field season. The geospatial data is sorted by the artifact types: ceramic, glass, metal, can, and other.

**Block 7K**

Block 7K is located on the northeast corner of the barrack blocks. It is on an elevated portion of the land and has a direct line of sight to the town of Granada below. This block, as well as block 11H, were surveyed during the 2012 field season. The block initially housed people from Los Angeles, but eventually had people from both urban and rural settings living in the block (Clark and Drive 2015, 23). This block was also within direct sight of a guard tower (23). The highest percentage of artifacts found in the block were ceramics (38%) and the smallest percentage was cans (10%) (Figure 23).
Figure 22: Location of block 7K. Data courtesy of DU Amache Research Project.

<table>
<thead>
<tr>
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<th>7K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>10</td>
</tr>
<tr>
<td>Glass</td>
<td>18</td>
</tr>
<tr>
<td>Ceramics</td>
<td>26</td>
</tr>
<tr>
<td>Can</td>
<td>7</td>
</tr>
<tr>
<td>Other</td>
<td>8</td>
</tr>
<tr>
<td>Total</td>
<td>69</td>
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Figure 23: Graph indicating the percentage of different classes of field artifacts in 7K.
**Block 9E**

Block 9E was surveyed in 2018, along with Block 11F. This block was close to recreational and administrative buildings, such as the co-op, recreation building, and a baseball field (Clark and Kamp-Whittaker 2022, 56). The highest percentage of artifacts found in the block were glass (46%) and the smallest percentage was artifacts classified as other (9%) (Figure 25).

![Block 9E Location](image)

Figure 24: Location of block 9E. Data courtesy of DU Amache Research Project.
Block 9K

Block 9K was surveyed during the 2021 field season. This block was chosen to round out the pedestrian survey data collection of blocks that had recreation halls used as preschools (Clark and Kamp-Whittaker 2021, 4-5). The highest percentage of artifacts found in the block was glass (41%) and the smallest percentages were ceramics and cans (12%) (Figure 27).
Figure 26: Location of block 9K. Data courtesy of DU Amache Research Project.

<table>
<thead>
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</tr>
</thead>
<tbody>
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<td>Metal</td>
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</tr>
<tr>
<td>Glass</td>
<td>33</td>
</tr>
<tr>
<td>Ceramics</td>
<td>10</td>
</tr>
<tr>
<td>Can</td>
<td>10</td>
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<tr>
<td>Other</td>
<td>15</td>
</tr>
<tr>
<td>Total</td>
<td>81</td>
</tr>
</tbody>
</table>

Figure 27: Graph indicating the percentage of different classes of field artifacts in 9K.
Block 11H

Block 11H is located on the western edge of the facility and is the central-most block of the E row. This block, as well as 7K, were surveyed in 2012 during the field season. Almost all families who lived in this block were from Los Angeles. During the survey, various marbles, a toy spatula, and fragments of a child's tea set were found (Clark and Driver 2015, 61). The highest percentage of artifacts found in the block was glass (31%) and the smallest percentage was cans (6%) (Figure 29).

![Block 11H Location](image)

Figure 28: Location of block 11H. Data courtesy of DU Amache Research Project.
Figure 29: Graph indicating the percentage of different classes of field artifacts in 11H.

**Block 11F**

Block 11F is the block that has the most resources associated with it. Due to the fact that the 11F recreation hall was returned to its original location in 2018, there is a wealth of information associated with this feature. The block was initially surveyed in 2016 and excavations were conducted in 2018, as well as a monitoring project in 2020 to detect any cultural material that may be affected by the reinstallation (Clark and Kamp-Whittaker 2022, Slaughter 2020). The reconstructed recreation hall provides a unique opportunity to truly understand the context of the building as well as the scope of its use. It also aids in the interpretation of the other blocks that included preschools and vice versa.

This block is unique in that we have an oral history directly associated with experiences within this particular preschool. Carlene Tinker has few memories associated with her time at Amache. She arrived at three years old and was six when the relocation center was closed. She specifically remembers the interior of her preschool in the block 11F recreation hall and small material aspects of her day-to-day experiences within it.
She remembers her assigned spot for naps with her blanket as well as the cubby that she would retrieve it from (See Figure 32 for author’s rendering of recreation hall interior). She remembers the orange juice that was given during snack time. During a walk through her residential block (11G), she began to remember the path that she walked to school and the landscape. The highest percentage of artifacts found in block 11F was other (29%) and the smallest percentage was cans (4%) (Figure 31).

Figure 30: Location of block 11F. Data courtesy of DU Amache Research Project.
### Table: Block 11F Field Artifact Type by Percentage

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>11F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>19</td>
</tr>
<tr>
<td>Glass</td>
<td>16</td>
</tr>
<tr>
<td>Ceramics</td>
<td>12</td>
</tr>
<tr>
<td>Can</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>70</td>
</tr>
</tbody>
</table>

Figure 31: Graph indicating the percentage of different classes of artifacts in 11F.

#### 11F Recreation Hall Interior

Figure 32: 11F recreation hall interior based on information from oral history conducted with Carlene Tanigoshi Tinker.
Toys at Amache

Since children were a large portion of the interned population, it is no surprise that toys have been found in the archaeological record. The location of toys, material culture most commonly associated with children, can provide evidence of spaces that were used for play. Various toy types have been found around the site. Most clusters are around the buildings, however there are a few spaces that seem to be removed from the residential blocks. These may indicate areas that children deemed appropriate for a play space and created for themselves. Marbles are mainly found in these spaces, indicating group play. Marbles were the most common objects that were found as they were incredibly popular and their material holds up well in the climate. Marbles, toy tea sets, glass candy jars, miniature vehicles, and various other types of toys have been rediscovered in archaeological excavations (Clark et al. 2010; Clark et al. 2012).
The spatial distribution of toys is important for understanding the context of play and the relationship children have with the toys. Location, toy type, and cultural norms of the time allow us to determine a part of the relationship between child and toy. It is also important to note that while I am using toys as an indicator of children’s spaces in
relation to preschools and preschool-aged children, these objects are not exclusive to this demographic’s age. Preschool locations are anchors for children and these objects.

Figure 34: Top photo: Boys playing with marbles. WRA Photo. Tom Parker, Photographer. Courtesy of the National Archives. Subsequent photos: Marbles photographed *in situ* during archaeological survey.
Toys were found in all residential blocks with preschools at Amache (Table 1).

Table 1: All toys found during survey and excavation of preschool blocks.

<table>
<thead>
<tr>
<th>Block</th>
<th>FA/Lot #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7K</td>
<td>7K FA14</td>
<td>Small complete glass marble with brown, white and red striped pattern</td>
</tr>
<tr>
<td>7K</td>
<td>7K FA26</td>
<td>Whole glass marble, blue and white</td>
</tr>
<tr>
<td>7K</td>
<td>7K FA35</td>
<td>Small glass marble, white</td>
</tr>
<tr>
<td>7K</td>
<td>7K FA38</td>
<td>Small glass marble, white</td>
</tr>
<tr>
<td>7K</td>
<td>7K FA39, 7K.1.1</td>
<td>Metal painted horse and rider charm, cracker jack toy</td>
</tr>
<tr>
<td>9E</td>
<td>9E FA 2106, 9E.6.1</td>
<td>Unglazed, orange/brown/beige marble</td>
</tr>
<tr>
<td>9K</td>
<td>9K FA25</td>
<td>Blue marble</td>
</tr>
<tr>
<td>9K</td>
<td>9K FA43</td>
<td>Orange and red swirl marble</td>
</tr>
<tr>
<td>9K</td>
<td>9K FA51</td>
<td>Orange and white swirl marble</td>
</tr>
<tr>
<td>9K</td>
<td>9K FA54</td>
<td>Possible toy teacup</td>
</tr>
<tr>
<td>9K</td>
<td>9K FA67</td>
<td>Green marble</td>
</tr>
<tr>
<td>9K</td>
<td>9K FA70</td>
<td>Clear and white marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA12</td>
<td>Black and white marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA14, 11H.4.1</td>
<td>Metal toy spatula</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA20</td>
<td>Blue-white marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA23</td>
<td>Cobalt blue glass marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA24</td>
<td>Light blue/red marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA25</td>
<td>Clear and light blue marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA3, 11H.2.1</td>
<td>Melted marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA39, 11H.10.1</td>
<td>Possibly a toy porcelain plate</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA7</td>
<td>Blue marble</td>
</tr>
<tr>
<td>11H</td>
<td>11H FA8</td>
<td>Dark blue marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F FA53, 11F.6.1</td>
<td>1930's Wyandotte Steel Airplane</td>
</tr>
<tr>
<td>11F</td>
<td>11F FA60, 11F.8.1</td>
<td>Blue/orange/white marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F.12.3*</td>
<td>A small piece of unglazed porcelain bisque</td>
</tr>
<tr>
<td>11F</td>
<td>11F FS802, 11F.13.1*</td>
<td>Ceramic marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F FS806, 11F.17.1*</td>
<td>Complete glass marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F FS808, 11F.19.3*</td>
<td>Glass Marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F.39.1</td>
<td>Glass marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F.60.1*</td>
<td>Marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F.61.2*</td>
<td>Possibly a toy spade</td>
</tr>
<tr>
<td>11F</td>
<td>11F.60.6*</td>
<td>Possibly a toy plate</td>
</tr>
<tr>
<td>11F</td>
<td>11F.60.2*</td>
<td>Possibly a small green, marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F FA11</td>
<td>Black marble</td>
</tr>
</tbody>
</table>
Two toys that were proven to have been brought in from camp were both found in blocks with preschools. An airplane fragment (Figure 35), recovered from 11F, was identified as being made by the Wyandotte Toy Company, was comparatively identified with an intact collector’s item that was dated as pre-war (Slaughter and Clark 2020, 52-53). A cracker jack toy (Figure 35) found in 7K was also determined to be pre-war, based on background research and the use of PXRF technology (Driver and Clark 2015, 29-30). Metals that were used in the creation of the toy were found to be pre-war due to the fact that the metal it was comprised of (tin and lead) was rationed and focused towards the war effort (2015, 30). They would not have often been used in goods for civilians at the time.

<table>
<thead>
<tr>
<th>11F</th>
<th>11F FA23</th>
<th>Marble</th>
</tr>
</thead>
<tbody>
<tr>
<td>11F</td>
<td>11F FA27</td>
<td>Marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F FA31</td>
<td>Marble shooter</td>
</tr>
<tr>
<td>11F</td>
<td>11F FA64</td>
<td>Marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F FA66</td>
<td>Marble</td>
</tr>
<tr>
<td>11F</td>
<td>11F FA71</td>
<td>Marble green and white swirl, broken</td>
</tr>
</tbody>
</table>

*Artifacts not included in spatial data

Figure 35: A cracker jack toy recovered from block 9E. A toy plane recovered from block 11F. Courtesy of Megan Debard and Niemann and Colin Orlowski from the DU Connecting the Pieces Virtual Exhibit.
To build on this individualism, it is also important to be cognizant of the duality of these children’s identities. They were both Japanese and American, incorporating aspects of both cultures into their identity. It is a complicated matter as each child manifested these identities in different ways. This aspect can be viewed in toys, with varying toys with American connotations that were bought in the camps as well as toys that were brought in with them. With the toys that were brought in, it is clear that the children were already incorporating their American identity into their Japanese heritage.

I created a graph that portrayed each residential block and the counts of toys compared to other artifact types (Figure 36). According to the graph, of the preschools, 11H had a higher distribution of toys recorded during survey, while 9E had a smaller distribution in comparison to other artifact types in the blocks. These amounts included artifacts found only during survey and not excavation, therefore it is possible that should excavations be conducted in these blocks, there would be a larger concentration of toys.
Figure 36: Graph Indicating Percentage of Artifact Type for Each Residential Block

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Chi-Square Test of Independence: Field Artifacts

Extensive survey and testing has been conducted at the site, providing a large database of recorded artifacts. This analysis only includes artifacts that were recorded during surface survey, recorded as Field Artifacts (FAs). To determine whether there were significant differences between the types of artifacts in blocks with preschools vs. those without I conducted a Chi-squared test. According to my calculations, there is no significant difference in the types of artifacts in blocks with preschools, $\chi^2 (2, N = 1938) = 5.84, p < .05$.

Table 2: Counts used for Chi-Square analysis comparing artifact distribution of residential blocks with preschools to those without.

<table>
<thead>
<tr>
<th>Artifact Type</th>
<th>Residential Blocks With Preschools</th>
<th>Residential Blocks Without Preschools</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal</td>
<td>77</td>
<td>335</td>
<td>412</td>
</tr>
<tr>
<td>Glass</td>
<td>137</td>
<td>595</td>
<td>732</td>
</tr>
<tr>
<td>Ceramics</td>
<td>69</td>
<td>240</td>
<td>309</td>
</tr>
<tr>
<td>Can</td>
<td>36</td>
<td>127</td>
<td>163</td>
</tr>
<tr>
<td>Other</td>
<td>29</td>
<td>141</td>
<td>170</td>
</tr>
<tr>
<td>Toy</td>
<td>38</td>
<td>114</td>
<td>152</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>386</td>
<td>1552</td>
<td>1938</td>
</tr>
</tbody>
</table>

My theory was that blocks with preschools would have a statistically significant distribution of toy artifacts compared to residential blocks without. However, this was not the case. Comparatively, residential blocks with preschools compared to those without did not have any statistically significant distribution in that the distribution was random (Table 2). This indicates that areas that were not designated as children’s spaces were just as likely to be occupied by children and used for play. Children were occupying many spaces around Amache and were free to play wherever they saw fit. This directly ties into
the sense of community that was felt throughout the camp and the sense of security that
children had in securing their own space (Kamp-Whittaker 2010).

**Archaeological Analysis: Excavation Units**

Extensive survey has been conducted in most residential blocks at Amache. The
surface analysis is complemented by limited test excavations in areas of further interest,
including different kinds of incarcerated-created landscaping, locales linked to graduate
student research, and areas of the site slated for development. The exact unit location and
size are meticulously chosen based on background information, such as photos, oral
histories and written documents, survey data, and ground penetrating radar data. I chose
two locations to compare, one block with a preschool (11F) and one without (9L). The
units within these blocks are both associated with garden features and near communal
buildings (a recreation hall and the latrine respectively).
There is a large garden feature south of the recreation hall/preschool. The 11F recreation hall is the only currently known recreation hall within a preschool block that has an identified garden directly adjacent to the building. The garden was first identified.
and mapped through surface survey in 2016 and that is the boundary shown in Figure 37. However, through GPR analysis conducted in 2018, it appeared the feature extended along the full length of the area south of the recreation hall foundation (Clark and Kamp-Whittaker 2022, 75). According to Lawrence Conyers,

“Ground-penetrating radar (GPR) is one of these geophysical methods that involves the transmission of high-frequency radar pulses from a surface antenna into the ground. The elapsed time between when this energy is transmitted, reflected from buried materials or sediment and soil changes in the ground, and then received back at the surface is measured. When many thousands of radar reflections are measured and recorded as antennas are moved along transects within a grid, a three-dimensional picture of soil, sediment, and feature changes can be created” (Conyers 2016, 2).

Based on the surface survey and GPR data, seven excavation units were opened near the recreation hall in 2018: 803N/822E, 801N/820E, 799N/818E, 797N/816E, 815N/814E, 800N/828E, 801N/805E (Figure 37). These were intended to better understand the extent and nature of the garden features (F 14). GPR and excavation confirmed that this space included a regularly placed alignment of trees that ran most of the length of the southern side of the recreation hall. This landscaping feature was a source of shade for those who used the building and likely created a welcoming atmosphere for children’s play (Clark and Kamp-Whittaker 2022, 82).
The 9L units were part of the testing of a garden feature that, similar to Feature 14 in Block 11F, was identified using pedestrian survey and GPR (Clark 2008, 2). These excavations were conducted in 2008. Three units were opened in Feature 1, 1004E/998N, 1006E/1000N, and 1008E/998N, north of the bathhouse.
Figure 39: Block 9L excavation unit location. Data courtesy of The DU Amache Research Project.
Between the two study areas, it appears that glass was the highest percentage of artifacts recovered from both. Based on the total artifact assemblage recovered from each of the units within the two blocks, 11F had a higher percentage of toys found. However, out of the eight units in 11F, three yielded toys compared to two out of three in 9L.

**Conclusion**

Based on the Chi-Square analysis I conducted between the artifact assemblage in blocks with preschools and those without, there is an indication that there is a random distribution of artifacts in these areas and that it is not statistically significant. With these findings, it would seem that toys were not more likely to be present in blocks with preschools than those without. The comparison of excavation units in 9L and 11F also yielded inconclusive results in that toys were found in both locations, with three units
yielding toys in 11F and two in 9L. Preschool-aged children lived in most, if not all, residential blocks and they would have spent most of their time in these areas. The time spent in school was only a part of their lives. While children played in these areas as well, they may have brought these toys to school and back, especially if certain toys were not provided by the institution.
Chapter Six: Landscape Analysis

Introduction

To better understand how children left their mark on the landscape, I analyzed how other incarcerees may have changed the landscape due to the presence of children. It was my hypothesis that areas around preschools could have more tree coverage to provide shade for where children would play. I also included other landscape features to determine if there was an abundance of landscape features in blocks with preschools. I included features such as gardens, ponds, and trees, anything that is identifiable as being planted or constructed by Japanese Americans who were incarcerated at Amache.
Based on the visual analyses, the cluster of features are around the barrack closest to the preschool. There is also a line of trees along the southern wall of the same barrack. Notably, the metal horse and rider figurine that was included in the artifact analysis was
found within this cluster of trees, suggesting that a child may have been playing in the area. At the north end of the bathhouse, there is another cluster of trees that could have surrounded a seating or meeting area. There is one tree to the northwest of the recreation hall and a ceramic marble was recovered near it. There are 5 landscape features within block 7K (Table 3).

Table 3: Landscape features in Block 7K

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Possible garden</td>
</tr>
<tr>
<td>4</td>
<td>Hardscaping feature, possible pond</td>
</tr>
<tr>
<td>5</td>
<td>Western garden feature</td>
</tr>
<tr>
<td>6</td>
<td>Central garden feature</td>
</tr>
<tr>
<td>7</td>
<td>Eastern garden feature</td>
</tr>
</tbody>
</table>

**Block 9K**

9K is the preschool block that has the greatest number of landscape features. Notably, there are two trees, still living, that are at the northwest and northeast corner of the recreation hall building. There are 17 landscape features within block 9K (Table 4). A toy tea set piece was found near a fallen tree, possibly indicating a shaded area for a tea party. The only other toys that were found during survey in this block were marbles.
Figure 42: Block 9K feature locations. Data courtesy of The DU Amache Research Project.
Table 4: Landscape features in Block 9K.

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SW corner garden below barrack 12</td>
</tr>
<tr>
<td>3</td>
<td>Mess hall garden</td>
</tr>
<tr>
<td>5</td>
<td>Garden in front of barrack 2</td>
</tr>
<tr>
<td>6</td>
<td>Small garden on NW corner of barrack 12</td>
</tr>
<tr>
<td>7</td>
<td>Possible shaded seating area</td>
</tr>
<tr>
<td>8</td>
<td>Mess hall garden</td>
</tr>
<tr>
<td>9</td>
<td>Barrack 13 garden</td>
</tr>
<tr>
<td>10</td>
<td>Garden east side of mess hall</td>
</tr>
<tr>
<td>12</td>
<td>Possible garden beds</td>
</tr>
<tr>
<td>15</td>
<td>Garden</td>
</tr>
<tr>
<td>17</td>
<td>Garden north of barrack 3</td>
</tr>
<tr>
<td>18</td>
<td>Front of barrack garden</td>
</tr>
<tr>
<td>19</td>
<td>End of block landscaping</td>
</tr>
<tr>
<td>21</td>
<td>Back of barrack 3 landscaping</td>
</tr>
<tr>
<td>22</td>
<td>Front of barrack garden</td>
</tr>
<tr>
<td>25</td>
<td>Front of barrack 6 garden</td>
</tr>
<tr>
<td>29</td>
<td>Barrack garden</td>
</tr>
</tbody>
</table>

**Block 9E**

9E has landscape features that are predominantly associated with the Mess Hall and Bathhouse. All trees that have been recorded are in that area are near these locations as well. It would appear that the central communal area was the focus for the garden features. 9E has a total of 8 landscape features (Table 5). Only one toy was recovered from block 9E, a marble (Table 1).
Figure 43: Block 9E feature locations. Data courtesy of The DU Amache Research Project.
Table 5: Landscape features in Block 9E.

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mess hall gardens</td>
</tr>
<tr>
<td>6</td>
<td>Bathhouse garden</td>
</tr>
<tr>
<td>7</td>
<td>Possible bathhouse garden</td>
</tr>
<tr>
<td>8</td>
<td>End of bathhouse garden</td>
</tr>
<tr>
<td>9</td>
<td>End of barrack garden</td>
</tr>
<tr>
<td>10</td>
<td>Barrack garden</td>
</tr>
<tr>
<td>12</td>
<td>Possible barrack 12 garden</td>
</tr>
<tr>
<td>14</td>
<td>Barrack 8 garden</td>
</tr>
</tbody>
</table>

**Block 11H**

Block 11H has the most trees of all the preschool blocks. They surround most of the barracks and communal buildings, which would have provided a lush and shaded landscape for the residents of this block. From a visual analysis and the 2012 archaeological report, the features in this block are mainly associated with barrack buildings (Clark and Driver 2015, 63, Figure 44). There is a cluster of trees to the north of the mess hall, possibly indicating a shaded area for socializing. The recreation hall/preschool is surrounded by trees, particularly along the southern wall and the corners of the northern wall. More than half of these trees are still living. The residents of this block put many resources into the landscape of what would have been their neighborhood. Within block 11H, there are a total of 8 landscape features (Table 6). There are various types of toys found in this block and the majority of them are in a close proximity to trees.
Figure 44: Block 11H feature locations. Data courtesy of The DU Amache Research Project.
Table 6: Landscape features in Block 11H.

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pond/garden</td>
</tr>
<tr>
<td>4</td>
<td>Garden</td>
</tr>
<tr>
<td>6</td>
<td>Garden</td>
</tr>
<tr>
<td>7</td>
<td>Garden with concrete wall</td>
</tr>
<tr>
<td>9</td>
<td>Concrete block (garden)</td>
</tr>
<tr>
<td>10</td>
<td>Garden and limestone around trees</td>
</tr>
<tr>
<td>11</td>
<td>Circular limestone scatter</td>
</tr>
<tr>
<td>12</td>
<td>Garden in front of barrack</td>
</tr>
</tbody>
</table>

**Block 11F**

Block 11F has features that are mainly associated with barrack buildings. Trees are distributed around the block. There is a large garden feature along the south wall of the recreation hall/preschool. The 11F recreation hall is the only currently known recreation hall within a preschool block that has a garden directly off the building (Figure 45). 11F has a total of 11 garden features within its boundaries (Table 7).
Figure 45: Block 11F feature locations. Data courtesy of The DU Amache Research Project.
Table 7: Landscape features in Block 11F.

<table>
<thead>
<tr>
<th>Feature Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Entryway garden in front of barrack 11</td>
</tr>
<tr>
<td>3</td>
<td>End of barrack garden</td>
</tr>
<tr>
<td>4</td>
<td>Garden entryway and corner</td>
</tr>
<tr>
<td>5</td>
<td>Entryway garden</td>
</tr>
<tr>
<td>6</td>
<td>Entryway garden</td>
</tr>
<tr>
<td>7</td>
<td>Small garden</td>
</tr>
<tr>
<td>10</td>
<td>Wrap around garden</td>
</tr>
<tr>
<td>11</td>
<td>Entryway garden</td>
</tr>
<tr>
<td>12</td>
<td>Entryway garden</td>
</tr>
<tr>
<td>13</td>
<td>Entryway garden</td>
</tr>
<tr>
<td>14</td>
<td>Backyard garden</td>
</tr>
</tbody>
</table>

**Trees**

One of the landscape features that those incarcerated at Amache put a lot of time and energy into and which can be found all over the site are trees. When Amache first opened, the land that had already been ravaged by the Dust Bowl had been bulldozed to make way for the construction, creating a stark and desolate landscape. Dust storms were common. (Clark 2020, 83). The natural landscape of the eastern Colorado plains is relatively flat with little tree cover. Trees would have been a priority to provide shade and as resistance to the high winds. Trees were planted near the recreation halls, which can be seen in the recordation of tree locations (Figure 47). What is amazing about these features is that they are still visible and resilient against the test of time. Anyone who visits Amache can still see the hard work that was put into making the landscape bearable.
In relation to 11F, there are remains of what would have been an elaborate garden that included tree coverage. According to Bonnie Clark and April Kamp-Whittaker,
“By focusing their landscaping (especially tree planting efforts) on the south side of the building, the 11F gardeners would have provided shade for a structure that—at least part of the time—would have been filled with young children from not just their own, but also nearby blocks” (Clark and Kamp-Whittaker 2022, 82).

There was also written documentation of a movement for planting trees around the recreation halls where preschools were located (Elementary School Pre-school Department 1943, 1). Archaeological field work at Amache included recording the trees that remained at the site. There was also evidence of trees that was recovered during excavation of garden features. Along the south side of the 11F recreation hall, there is a line of trees that would have helped block the sun as it rose from the south, as well as keeping the building cooler inside (Clark 2020, 93).
7H, 9H, 11H, and 12F appear to have the greatest density of the residential blocks. Notably, 11H is one of the preschool blocks. In addition to the heat map, I created a visual aid to understand the distribution of toys in relation to trees in the form of a heat map.

Figure 47: Heat map of tree density across Amache. Data courtesy of DU Amache Project.
Many toys are near trees, indicating that these features may have been a factor in the choice of these areas as a play area. Block 11H, a preschool block, has a large cluster of toys in areas that have dense tree coverage. The only other block that has a large number of toys and high tree density is 7H.
Conclusion

The placement of features near preschools and the written documentation of the intent behind some of these landscape features does indicate that the presence of children influenced the location of certain features on the landscape. The community that lived at Amache was motivated to create a more hospitable environment for their families and the children who were held there.
Chapter Seven: Demographic Analysis

Introduction
As previously mentioned, children were the largest demographic in the incarceration camps. With preschools becoming a permanent institution within the educational structure of Amache, I wanted to determine if preschool aged children and their families were more likely to be placed in a block with a preschool or in a block adjacent to one. The demographic data I used was compiled by a graduate student at DU, Salem Arvin, under the direction of April Kamp-Whittaker, the Co-Director of the DU Amache Project. I combined the demographic data with the spatial data that was made available by the DU Amache Project.

Methods
The demographic data that I utilized had over 7,000 individuals that were held at Amache, therefore I created a table from this data that only had children who were within the preschool age. I created new fields that were relevant to my analysis (Table 8).

Table 8: Fields created for analysis.

<table>
<thead>
<tr>
<th>NUM_PRESCH</th>
<th>BLOCK</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUM_PRESCH field is the amount of preschool aged children and BLOCK is the block where they lived.</td>
<td></td>
</tr>
</tbody>
</table>

I added a shapefile of the blocks and barracks to determine the geographical area. The blocks were broken down by barracks within the blocks, therefore it was difficult to join the demographic data to the existing shapefile. I only needed to have each count of preschoolers attached to the block number, therefore I created points
for the central locations of each block. I then used that new feature layer to join the
demographic data to a geographical area. I used the BLOCK field to join the data, as
shown in Figure 49.

![Add Join tool parameters](image)

Figure 49: “Add Join” tool parameters.

The data was sorted into individuals who were assigned to their blocks in 1943
and 1945. I chose to work only with data from the initial assignments from 1943, the
early days of Amache. Since the dataset was quite large, I used the filter tool in Excel to
make the work more manageable. I filtered by each block and then by year born to limit
the data to children born from 1938-1942 to keep the age range from 3-4 years old. This
was the age of children who were in preschool (Figure 50). This also provided data for
infants who would grow to preschool age at Amache. I added this data to the new table
that I created (Table 9). With this data, I then explored if there was a relationship between living assignments of families with preschool aged children and the location of preschools.

![SCHOOL HOURS]

<table>
<thead>
<tr>
<th></th>
<th>Morning</th>
<th>Afternoon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-School</td>
<td>9:15 - 9:45</td>
<td>2:00 - 4:00</td>
</tr>
<tr>
<td>Four-year Olds</td>
<td>10:00 - 11:30</td>
<td>2:00 - 4:00</td>
</tr>
<tr>
<td>Three-year Olds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 50: Record of the ages of children in preschool. From Amache Elementary School Handbook 1943-1944. Courtesy of Densho Digital Repository.

From the Amache Project data, I included feature layers of the block locations, which included barracks, and a layer of preschool locations that I created from a feature layer that portrayed the other administrative and recreational buildings. I selected the recreation halls in 7K, 9K, 9E, 11H, and 11F and created a new feature layer from this selection.

I used the Graduated Symbols symbology to portray the number of children in each block. I labeled the features based on their block number to better orient the viewer with the layout of the site. The following map, shown in Figure 51, is a basic visual of block layout, the number of children in each block, and the locations of the preschools:
Figure 51: Numbers of preschoolers in blocks in relation to preschool locations. Data courtesy of The DU Amache Research Project.
Based on Figure 51, there does not seem to be an obvious correlation between preschool-aged children and the location of the preschools.

**Analysis**

To determine delve deeper into correlations, I used the “Spatial Autocorrelation (Global Moran's I) (Spatial Statistics)” tool from the Proximity toolset in the Geoprocessing pane. I ran the tool with the parameters illustrated in Figure 52:

![Spatial Autocorrelation (Global Moran's I) (Spatial Statistics) tool parameters.](image)

I had trouble understanding the parameters of the Input Feature Class and Input Field. I really wanted to see if there was an increase in preschoolers near the blocks with preschoolers, but I was not able to clearly indicate that in this tool. I instead was able to calculate if there was a random placement of preschool-aged children in or near
blocks with preschools or if there was a clustered pattern in these locations.

Figure 53: Spatial Autocorrelation (Global Moran's I) (Spatial Statistics) report. According to the report, the spatial distribution of preschoolers to certain blocks is random. This would indicate that there was no pre-planning of where to place families with preschool aged children. The distribution may have been at random to fill open spaces within each block. I also ran a simple spatial analysis using the “Buffer” tool. I
chose to create a buffer of 150 meters around each recreation hall that housed a preschool, which would create a wide enough net to encompass other blocks but not overlap with other blocks that were close to other preschools. Figure 54 shows the input parameters for the “buffer” tool.

![Geoprocessing: Buffer tool parameters.](image)

Figure 54: “Buffer” tool parameters.

The tool created a new buffer layer that extended 500 feet from the central point of the preschools:
Figure 55: Preschool locations buffer. Data courtesy of The DU Amache Research Project.
I then selected the preschool locations by using the buffer as the parameters for the “Summarize Within” tool (Figure 56).

Table 9 shows the amount of preschool-aged children summarized within the 500 ft buffer around the preschool. It was my assumption that there would be a high count of preschool-aged children within these buffers, however that was not the case. This analysis also does not indicate that blocks that had larger preschool populations were near preschools.
Table 9: Counts of preschool aged children within the 500 ft buffer around the preschool locations.

<table>
<thead>
<tr>
<th>Block</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>11F</td>
<td>15</td>
</tr>
<tr>
<td>11H</td>
<td>24</td>
</tr>
<tr>
<td>9E</td>
<td>12</td>
</tr>
<tr>
<td>9K</td>
<td>25</td>
</tr>
<tr>
<td>7K</td>
<td>10</td>
</tr>
</tbody>
</table>

**t-Test**

I performed a t-Test to determine if there is a significant difference in the number of preschool-aged children in residential blocks with preschools compared to those without. The t-Test demonstrated that there is no statistically significant difference between the blocks with preschools ($M = 10.4$, $SD = 17.3$) vs. those with no preschools, ($M = 14$, $SD = 21.74$), $t(1.72) = 2.45$, $p = .05$).

Table 10: t-Test values of preschool-aged children in blocks with preschools compared to those without.

<table>
<thead>
<tr>
<th>Variable 1</th>
<th>Variable 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>10.4</td>
</tr>
<tr>
<td>Variance</td>
<td>17.3</td>
</tr>
<tr>
<td>Observations</td>
<td>5</td>
</tr>
<tr>
<td>Hypothesized Mean Difference</td>
<td>0</td>
</tr>
<tr>
<td>df</td>
<td>6</td>
</tr>
<tr>
<td>$t$ Stat</td>
<td>-1.722942273</td>
</tr>
<tr>
<td>$P(T&lt;=t)$ one-tail</td>
<td>0.067835874</td>
</tr>
<tr>
<td>$t$ Critical one-tail</td>
<td>1.943180281</td>
</tr>
<tr>
<td>$P(T&lt;=t)$ two-tail</td>
<td>0.135671747</td>
</tr>
<tr>
<td>$t$ Critical two-tail</td>
<td>2.446911851</td>
</tr>
</tbody>
</table>

**Conclusion**

Ultimately, it would seem that children and their families were not placed in specific blocks based on their children's age and the locations of preschools. As I worked with the data, I realized that there were some limitations. Some demographic information
was not included for certain entries. Due to the fact that I did not have access to the resources that were used for compiling this table, I could not corroborate or attempt to fill in the information on my own. The count for preschool aged children in the table is also extremely low and there were 175 individuals who did not have a block assignment included in the data. Therefore, my analysis is more of an example of how these spatial analyses could be useful in attempting more complex analyses. In particular, The Spatial Autocorrelation (Global Moran's I) (Spatial Statistics) tool is incredibly useful for future work with demographics.
Chapter Eight: Conclusion

Of the incarcerated that were at Amache from 1942-1945, many were children who left their physical mark on the landscape through toys and the creation of designated areas for their play and education. Based on the analyses conducted in this project, there does not seem to be a correlation between increased clusters of toys in preschool blocks. This would indicate that children were occupying many spaces around Amache and were free to play wherever they saw fit. This directly ties into the sense of community that was felt throughout the camp and the sense of security that children had in securing their own space (Kamp-Whittaker 2010).

Findings

My research questions were related to preschools and preschool aged children and how they impacted Amache physically and culturally:

- How were the preschool/nursery institutions created? What was its design?
- What were preschooler’s experiences within Amache?
- What are the spatial differences between blocks with preschools/nurseries and those without?
- Is there a difference in toy distribution in blocks with preschools/nurseries and those without?
- Was the landscape altered differently in blocks with preschools compared to blocks without?
How were the preschool/nursery institutions created? What was its design? And What were preschooler’s experiences within Amache?

The nursery/preschool institutions were a grassroots effort that was started by the communities held within the Santa Anita and Merced Assembly Centers. When they were relocated to Amache, these same communities created new institutions before they were eventually recognized and headed by the War Relocation Authority. The preschools were held within the recreation halls of five residential blocks and had teachers who followed a curriculum, much like modern school systems. They had recommended reading materials to build their teaching skills, generated quarterly reports, and filled out report cards for each of their students. Socialization, grammar, and behavior were the main qualities that were evaluated within preschools, with most skewing towards an Americanized viewpoint. However, teachers were often Japanese American women who were also being held in Amache. Therefore, the duality of the children’s identities as both Japanese and American seemed to be more fluid in these areas. The sense of community also provided a sense of comfort, with young children often walking to school alone (Tinker 2021). Children also had an outlet for their voices in the form of a school newspaper, which was an invaluable resource for how the children viewed the world around them and their experiences within Amache (Appendix C).

What are the spatial differences between blocks with preschools/nurseries and those without?

The demographic analysis indicates that the age of children was likely not a factor in the placement of families in relation to preschools. The preschools were placed in what
was considered an even distribution within the residential blocks as referenced in the Amache Elementary School Handbook. The families that had preschool-aged children were not placed nearer to preschools. This may be because they were not a permanent institution until after Amache opened, however there is also no indication that families that moved and would have had children who may have been born at Amache were placed in that area.

*Is there a difference in toy distribution in blocks with preschools/nurseries and those without?*

Toys are an important indicator of children’s presence across the landscape of Amache. It was clear that the distribution of these objects was not primarily near designated children’s spaces. In fact, they were scattered all across Amache. According to April Kamp-Whittaker, there was a level of independence that children experienced within Amache, giving them confidence to venture out around the incarceration camp (Kamp-Whittaker 2020, 149). Children would have also felt comfortable in areas that were not part of their initial living space or where they spent the majority of their time on activities, such as school.

Most toys that are found at Amache are marbles and while they are a resilient object, they are also easy to lose, making them more prominent in the archaeological record at Amache. Toys that were larger or more expensive are least likely to be found, likely because they were taken with the children when Amache closed. That is not to say that they have not been found (Figure 35), but they are few and far between compared to marbles.
To understand if there was a difference in toy distribution across the residential blocks, I used a Chi-Square analysis to compare the distribution of artifacts between residential blocks with preschools and those without. The findings were that there was no statistically significant difference in distribution between these two types of residential blocks. I also compared two excavation units and their data that were opened in these two types of residential blocks and had the same findings. There was no statistically significant difference between artifacts recovered in these spaces.
Was the landscape altered differently in blocks with preschools compared to blocks without?

The changes in the landscape would have directly correlated with what resources were available to people who lived in certain blocks. If there were more intricate landscape features with more expensive materials, it could indicate that the people who lived there had more funds to allow for the construction of these features. As mentioned in the previous chapter, there was an indication that trees were being planted by the recreation halls that would house the preschools, indicating a community effort to provide these features for the children.

Figure 58: Small entryway gardens with trees at the 8E mess hall entrance. McClelland Collection courtesy of The Amache Preservation Society.
Future Research

Play Without Toys

For archaeological purposes, material culture is our primary indicator of cultural practices and aspects of day-to-day life. However, there are aspects of culture and experiences that cannot always be understood from archaeological material. The gap that is often in the study of play is play without toys. Just because there are no toys in the area does not necessarily indicate that children were not present. As mentioned in Chapter 2, imaginative play combined with objects not commonly considered a toy may be found within anecdotes or photos. Objects that seem out of place or are found near areas that children frequented could have been used as a toy. It is a bit more difficult to concretely prove within the archaeological record, but could be interesting theoretically. While this thesis focuses on children’s spaces and uses the presence of toys to support the location of children’s spaces, it is important to understand that just because toys were not located in certain areas does not completely rule out that children were not there.

It is my hope that this thesis can be used to better understand the experiences of children at Amache. Delving deeper into education, young children’s activities, and the transition from preschool to elementary school and what that looked like within Amache would be avenues that could be expanded upon. It is now clear that preschool and elementary school materials were combined in many reports that were titled as elementary materials. That is something that should be kept in mind for future research and working with these resources. It is also clear that that there are physical indications of correlation between toy locations and tree coverage. How did the landscape affect play?
Preschool Excavations

Block 11F had the most extensive testing with survey and excavation. Excavation uncovered many toys that would not have been recovered if not for the return of the recreation hall and the archaeological monitoring associated. Based on what was found in this block and the surrounding area of the recreation hall, I would recommend that excavation be conducted around recreation halls in all preschool blocks. It is highly likely that the number of toys would increase and that many more objects will be uncovered in these areas. It would also be interesting to compare the types of toys found in these areas with the elementary school or other areas at Amache.

Early Childhood and Memory at Amache

Preschoolers are part of the last generation of survivors. It could also be useful to study how memory is presented from this generation. How do they remember? What does their memory mean to them? How does this tie into male/female recollection and are there differences? What does the power of place mean for survivors? How did an experience like this shape their adult lives? Coming at it from the angle of childhood experiences would be a juxtaposition against the memory of those who were incarcerated as adults and their own experiences.

Conclusion

As mentioned, children were the majority of those incarcerated at Amache. To preserve their experiences is to preserve an important part of the history of Amache. The contextual resources that I compiled and utilized for this research contributes to understanding the experiences of children at Amache, particularly preschoolers and their
experiences with the educational system at the site (Appendix C). It is also my hope that the findings of this research will provide insight into how preschool-aged children left a discernible impression on Amache through their agency in the community as a whole, as well as assist in the interpretation of the site, particularly with the 11F recreation hall. The use of the recreation hall as a preschool and what that meant to the community is an important aspect of its biography and should be included in any programming associated with it. With the building being a tangible feature within the park, how the recreation hall is represented will be an important part of visitor interaction with the site.

It is important to not only acknowledge the resilience of the adult Japanese American incarcerees, but their children and how they have thrived despite such a traumatizing experience. How children are treated can directly influence society and how they interact with their environment and communities. Entire families and subsequent generations were and are impacted by this experience and the generational trauma that followed. Events like this were not confined to this instance nor to the past. We are still grappling with scenarios like this today and the only way that we can prevent this in the future is by acknowledging the past to heal and make way for a better and brighter future.
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Appendices

Appendix A

Relevant Forms

<table>
<thead>
<tr>
<th>Block #</th>
<th>Amache Master Object List</th>
<th>Year:</th>
<th>__ of __</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crew Chief</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FA#</th>
<th>Description</th>
<th>Action</th>
<th>GPS</th>
<th>Photo</th>
<th>Done</th>
</tr>
</thead>
</table>

Action: C~ Collect; C&R~ Catch & Release; A&F~ Analyze in Field
<table>
<thead>
<tr>
<th>Block</th>
<th>Feature</th>
<th>FAM</th>
<th>Material</th>
<th>Sheet</th>
<th>Date Coll</th>
<th>Wash</th>
<th>Analyzed</th>
<th>Phone #</th>
<th>Returned</th>
<th>Comment</th>
</tr>
</thead>
</table>

### Anachse Catch and Release Artifacts Log Year:

- [ ]
Amache Oral History Legal Release

We, [Megan Brown] (interviewer)
and, [Carolee Tanguish Tinker] (interviewee) do hereby give and grant
to the Anthropology Department at the University of Denver (DU) all literary and property rights,
title and interest which we may possess to the digital voice recordings and transcripts of the
interview conducted on 7/23/20 for DU’s archives and use, which gift we will never
revoke or recall. This material can be used in all forms of media, including but not limited to-written,
audio, digital, and Internet.

In addition, we authorize DU to: (initial the line or lines below if you chose to authorize DU)
[ ] [X] donate the transcript and/or recording of the interview to other archives
[ ] [X] make available the transcript and/or recording to other researchers upon request

Interviewer’s signature ____________________________
Name: [Megan Brown]
Date: 7/23/2021
Address: University of Denver, 2000 E. Asbury Ave. (Sturm 146), Denver, CO 80208
Telephone: (303) 871-2406
Appendix B

Survey protocol for Crew chiefs, Summer 2021 By Dr. Bonnie Clark and Dr. April Kamp-Whittaker

Step 1: Initial Pedestrian Survey

Before survey make sure any non-road block boundaries have been delineated by RED flags. The map below shows how the blocks were laid out. IMPORTANT NOTE: The blocks were originally laid out oriented to magnetic, not true, north.

To flag out block boundaries, find the corner of a barrack or recreation hall and then use your compass to sight in a straight line outwards in the appropriate direction. Pull the tape out and lay your flags. Once several points have been measured off, you can use the existing flags and fill in the gaps.

Preparation for Survey Day 1.

Crew Training:

Each member of your crew will have very basic training on compass use, meter pacing, and artifact identification. However, these should be supported in the field with
supplementary lessons, for example discussing interesting artifacts or ones where identification is more challenging. The first few days of survey, work with your crew to measure out their pacing and make sure they can correctly visualize 2 meter spacing. A good way to do this is the fingertip test. Have crew members stand in line and stretch their arms towards each other. If their fingertips almost touch then they are about 2 meters apart. If spacing gets off during survey, have the crew stop for a fingertip test.

1st Day Gear:

Each crew needs a mapping unit, which consists of an iPad/tablet and its associated antenna. These are color coded by flagging tape. Do not mix and match!. Each crew member needs a full quiver of flags. You need a back-up quiver for the crew chief (these are larger and have an end cap) and a quiver of white flags for the end people. The designations for each colored pin flag are as follows:

- Red: Block or survey unit boundaries
- White: The edge of a survey transect
- Yellow: Features
- All other colors: Field Artifacts or FAs

Set-up crew along the road so they will survey parallel to, rather than across, barracks. Space them out at 2 m each. At the beginning use the long tape to space them. Once they are good you can just let them pace it. Remind crew members how to use a compass to sight on objects in the distance and maintain a straight line. This is especially important on the edges of the block. The crew on the end of the line away from the area already surveyed will lay a line of white flags while the one on the other end will pull the flags marking the edge of the last transect. It is wise to place the crew members who walk the straightest transect in these positions. The end crew should also have a compass to
help them sight where to walk to. Crew should call out all **non-architectural artifacts** they see and begin flagging FAs. (Note concentrations of architectural artifacts may need to be recorded as features, especially if it is clear they are not the result of camp dismantling).

The following are tally items so long as they are unmodified and cannot provide any additional data from further analysis:

- Glass fragments that can yield no additional data beyond color: These will be denoted by color: Aqua, colorless, dark green, light green, brown, cobalt, milk
  (If they are a color other than these, they should be marked as an FA)
- Soda bottle fragments
- Cold cream jar fragments
- Cleaning product bottle fragments (typically these are brown Hi-Lex or other bleach bottles)
  - Oil can
  - Gas can
  - Beer can
  - Tin can: If its a fragment or lid that should be called out. If its intact enough to note size, crews should do so. Small is tuna can type size; Large is Family (#10) size and anything in-between is Medium.
  - Bottle cap
  - Barrel hoop
  - Oil drum
  - Wire that has not been obviously modified
- Ceramic fragments with no real distinguishing features:
  These will be denoted by ware type: Earthenware, terracotta, hotelware, porcelain, stoneware, Fiesta ware

The following are Field Artifacts:

- Anything with an identifiable maker’s mark
- Personal artifacts (such as those related to grooming or clothing)
- Complete artifacts related to daily activities (such as cooking or gardening)
- Cans, Jars and bottles whose original size and/or contents could be determined (so long as they are not a tally item)
- Ceramics with a discernable pattern or with a rim or base
- Porcelain or other ceramics likely to be of Japanese manufacture
- Toys
- Any modified artifact (such as pierced cans or home-made buckets)
- Any mystery objects or other artifacts that could yield more data with more in-depth analysis

You will walk behind the line of crews. In addition to keeping an eye on the survey line, your main jobs are:

1) to consult with your crew (a lot at first) on whether or not something should be flagged as an FA or a Feature;

2) Give each FA or Feature within the block a sequential number, relay this to the student, who will write this number on the flag, and write it down in your log;

3) Write down the # and basic info on the appropriate paper form & Map the approximate location of each FA / Feature on your paper block map. [You will use these paper forms as back up from the GIS data each afternoon after initial survey to create the resource records in OCHRE. See explicit OCHRE instructions.]

A crew chief helper will also walk behind the survey line with a mapping unit to record the block artifact tally as they are called out using the Quick Capture app.

When recording artifacts try to be consistent both within your block and with past surveys. This helps make the survey data usable for different types of analyses. As much as possible, give even fragmentary items only one FA#. For example, if you have three pieces of porcelain that all come from the same vessel, just give it one FA.

A couple of hints for working with your crew on pedestrian survey:

- Keep an eye out for them bunching up or getting too far apart. If that happens, space back out from the line of white flags or edge of the road.
Also keep an eye out for those who either consistently go ahead or lag behind. It is better to have them err on the side of flagging possible FAs / Features rather than not.

Trash concentrations need to be surveyed at a 1 m interval. If it appears you are in a concentration, stop and do a recon to outline the boundaries. Flag those with yellow flags and assign it a feature #. When you shift to artifact analysis (see below), your crews will return to these features and survey them at a 1 m interval, doing tally and flagging FAs as usual, just at that closer survey interval. During survey, adjust the feature boundary flags if needed. Once you are done, the boundaries should be mapped as you do with other features using a mapping unit.

After a day or two of initial survey, you will begin more in-depth analysis of the flagged items. Working with the students you should double check that the artifacts are FAs and also make the call about whether or not the object should be analyzed in place, temporarily collected for analysis and photography at the field lab (known as Catch & Release) or collected. If an item is to be collected either temporarily or permanently, it does not need to be analyzed in the field. See the procedure below for Catch & Release/Collection. For items that you decide are not FAs (this should not be too many) you will need to change the record in OCHRE to remove the FA number and make it a tally item. This will create gaps in the FA #s that you will need to keep track of. These numbers can be reassigned to any new artifacts you find.

**FA Analysis Set-up:**

**Before you get to the field:** Make sure that each FA in the area to which are returning is in OCHRE and on the Master object list.
You will need 1 OCHRE device for every 2 people on your crew who will be doing analysis and 1 mapping unit for 1 other crew member to use.

Each crew member or team on analysis will need a covered clipboard with all of their supplies. These should be made the night before and contain:

- Calipers
- Photo scale
- Hand Tape
- Magnet
- Sharpies
- Pencil
- A few pieces of gridded paper

**In the field:**

1) FAs need to be photographed (with scale) from multiple angles and making sure to take close-ups of markings or important details.
2) The appropriate analysis should be completed for the artifact in OHCRE
3) a GPS location is taken with the mapping unit

Typically analysis teams will be made of two people. One person will handle the OCHRE tablet—using it to take photos and fill in the artifact analysis. The other will assist with analysis (e.g. measure the item and set it up for photos).

Each crew member is responsible for their clipboard and the materials inside and any device they are using. They are also in charge of keeping track of what they did that day and which device they used on their personal notepad. Their analysis materials, devices, and note-pad need to be returned to the field lab each afternoon. IMPORTANT: It is easy for crews to tuck the calipers in weird places. Make sure they turn them in at the end of each day as part of their analysis kit.

**Feature Analysis Set-up:**
Before you get to the field: Make sure that each Feature in the area to which are returning is in OCHRE and on the paper feature list.

For a 3 person crew you will need one OCHRE field device and one mapping unit.

Each team will need a “Feature bag.” These should be made the night before and contain:

- Covered clipboard with feature legend inside (see end of Handbook)
- Pencil
- Engineers scale
- Photo board & north arrow
- 2 Hand Tapes
- 10 pieces of graph paper
- 3 long tapes

In the field:

Rewalk the feature boundaries making sure they are accurate. Add yellow flags if necessary, including feature reference points if appropriate. Feature reference points could include the anchor for a paper map or an important aspect like a pond or unusual plant species. Then have your crews work on the following tasks:

1) Measure the feature.
2) Photograph with scale and completed whiteboard (Site #, Block & Feature #, Date).
3) Photograph without scale and whiteboard.
4) Photograph any appropriate detail (e.g. signatures in concrete or details of a garden feature).
5) Features need to be mapped using the mapping iPads. If they are smaller than a meter in extent, map the center as “Feature Point.” If they are larger than a meter, choose “feature area” which will map them as a polygon. Boundaries should be walked carefully to be as accurate as possible, especially when following a straight line such as the edge of a foundation.
6) If Feature Reference points have been identified, map them (they will be points not polygons).
7) Most landscape features will need to have a sketch map completed. If it is a single point or otherwise it seems unnecessary, consult with Bonnie or April
about whether or not a sketch map should be drawn of the feature. Many features can be mapped using the quick template at the end of this handbook.

Catch and Release/Collection

Before you get to the field:

Bring the materials you need for collecting artifacts when you start analysis. You may want to wait to collect most artifacts until your crew is comfortable doing analysis. Then you can work alone or with a student to collect the artifacts. The night before prepare your equipment. You need:

- A bucket to carry bags and artifacts
- Artifact bags
- White artifact tags
- A sharpie
- Red flagging tape
- A large cardboard box
- Your in-process Master Object Form
- Catch and Release Artifact form

In the field:

Relocate artifacts that you want to collect either permanently or for field lab analysis. As you collect each artifact, write their number and a short description down on the form. Fill out a bag and tag for each item. If the artifact is too large to bag, write out the FA and block number on flagging tape and tie that to the artifact. Take a quick field photograph and make sure that a GPS point has already been collected and looks accurate. Transfer smaller artifacts to your bucket and once you return to the field car place them in the box for transit. Work with students who are engaged in field analysis to make sure there are no artifacts that should be added to the initial catch and release list.

General Daily workflow during survey:
Before the 6 am meeting:

- If you will be using the mapping units, login to Field maps while you have the internet.
- Make sure you have the appropriate gear ready for your crew to pick up and load into the vehicle (e.g. make sure each crew member has a full set of pin flags or their analysis kit)

In the field:

You will supervise tasks as appropriate. For example, during FA analysis, you will help students find the numbers they are looking for using the OCHRE tablets. Then circulate around helping students as needed and doing some analysis yourself if possible. Make sure to be a part of the process since this helps you see if the system is functioning and is the most efficient possible. Also walking around your block can help recover items missed or misidentified in the initial survey and locate features.

It is likely you will encounter new field data that needs to be recorded as either an FA or a Feature. Go through the steps above to add to your block total.

END OF DAY:

Crews: Will return all their equipment from the day including digital equipment and their notebooks documenting what they completed.

You: If crew members have used units for mapping or recording in OCHRE, do a QC of their work before uploading. (Please work to complete your QC before or shortly after dinner.) Checking the digital records against your paper records and the crew member notepad is your first step. During QC look for Resource numbers that are not correct, misspellings, bad photographs, missing data, or things that don’t logically make sense. Any obvious mistakes that you can correct, please do, as they are much easier to fix
before uploading. If photographs or mapping points need to be re-taken, add them to your to-do list for the next day. Once you have completed your QC, go to the crew chief office (NOTE: this might need to happen at the museum if our WiFi is slow…) to make sure no one else is uploading. Follow the instruction to upload any data collected that day to OCHRE and sync the GIS data. Any FA or Feature on a paper form needs to be entered into OCHRE and cross checked on the GIS data to make sure points were collected. Check that all of the entries are complete and no additional records have been accidently modified. After uploading you can create the next day’s offline sessions if you are continuing to do artifact or feature analysis. If your crews have done any mapping using the Arrows, you will need to upload the new data from any tablets used. You will see a Cloud icon with an arrow. Hit that button. Once it is done you can open the map and any new points or polygons should be visible.

Plug in all the devices that will be used the next day to make sure they are fully charged.

Feature Mapping:

We do a quick and dirty version of a feature map for all features. There is a standardized legend that we use for all features and a layout for gardens. To map a barracks garden stretch a tape measure the length of the wall. Draw in the wall and doorways along one edge of the graph paper making sure to label the barrack #. Then use the second tape measure to pull out from the wall and collect reference points for features in the garden. You do not need to take a ton of points for each feature – just enough for you to sketch in the size and location accurately. Help your crews identify
resources, including FAs that should be included on the Feature map. FAs appropriate for inclusion on maps are items whose use is likely related to the feature (e.g. marbles near shade trees).
Legend

- Dead Tree
- Limestone
- Limestone Scatter
- Brick Crumble
- Brick
- Concrete
- Dimensional lumber
- Asbestos Crumble
- Coal Scatter
- GPS Point
- Live Tree
- River Cobble
- Barrack edge
- Barrack entry
- Scale Bar

Title: Almeche, Black — Qarat? (feature 0, GPR)
Appendix C

Newspaper Clippings

NURSERY SCHOOL

Nursery schools for children of 3 and 4 years of age will open Monday, the Recreation department announced today.

Maki Kawakami, formerly of the St. Mary's Episcopal Kindergarten in Los Angeles will be in charge of the new department.


PRE-NURSERY SCHOOL UNDER WAY

Starting from scratch, the pre-nursery school, under the supervision of Martha Takamura, has an enrollment of fifty children. Classes are conducted from 9-11 a.m. and 3-5 p.m. for children from 3-5 years of age.

Schools have begun in Wards A, B, C and D and others will be started within the week. The children play inactive and active games, are entertained, are told stories, and sing.

The Livingston church group contributed books to the nursery school. Assistant teachers are Mrs. R. Takahashi, Yaeko Shimada, Mrs. M. Hoshino, Elma Noguchi and Torpy Moe Murakami.
Appendix D

Relevant Maps

A map of the proposed boundaries for the preschool locations. From the Amache Elementary Handbook 1943-1944.
Japanese American Imprisonment during World War II


Map of barrack blocks with preschool blocks highlighted in red.
Appendix E

11F Recreation Hall Photos

Exterior of 11F Recreation Hall. Photo credit Megan Brown.

Interior of 11F Recreation Hall. Photo credit Megan Brown.
Current landscape around 11F Recreation Hall. Photo credit Megan Brown.

Original sketch of 11F recreation hall interior from Carlene Tanigoshi Tinker’s description.
## Appendix F

### Toys Found Within Preschool Blocks

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<td>Whole glass marble, blue and white</td>
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<tr>
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<td>Marble</td>
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*Artifacts not included in spatial data
### Appendix G

**Demographic analysis data dictionary**

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<th><strong>NUM_PRESCH</strong></th>
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### Appendix H

**Chi-Square Analysis – Residential Blocks With Preschools and Residential Block Without Preschools**

<table>
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<tr>
<th>Artifact Type</th>
<th>Residential Blocks With Preschools</th>
<th>Residential Blocks Without Preschools</th>
<th>Total</th>
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<tr>
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<td>385</td>
<td>462</td>
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<tr>
<td>Glass</td>
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<td>Ceramics</td>
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<td>Can</td>
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<td>Other</td>
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<td>Toy</td>
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<td><strong>Total</strong></td>
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#### Expected Values

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#### Observed-Expected

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#### Observed-Expected(*)

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### t-Test Analysis - Residential Blocks With Preschools and Residential Block Without Preschools

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Appendix I

Count of Preschool-Aged Children By Block

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