DU Amache Project Field School Summary

December 2012

By Christian Driver with contributions from Professor Bonnie Clark

We had a wonderful 2012 field season. Work on another six blocks was accomplished and brings us even closer to our goal of fully documenting the physical remains of Amache. This season we had a crew of 16 enthusiastic volunteers and field school students, covered five barrack blocks during survey, and excavated within three of those blocks. Information was recovered on hundreds of objects, some of which were collected and taken to the DU archaeology lab for further research.

DU Amache Summer 2012 Crews. Top: Week 2 at Amache, Bottom: Week 4 at museum
Research priorities this field season were based on the 2012 research design, and focused on both familiar and new topics. Once again this year, investigations of landscaping was a priority, and extensive soil chemistry and floral sampling was undertaken in order to determine what kinds of more subtle modifications internees were making to the landscape.

Daily life, especially the routines of children, was also a focus this year again. Areas that were identified as related to daily activities and routines were documented, mapped, and considered for possible further research.

Research by Master’s student Christian Driver is focused on the familiar topics of children and saké in the internment camp. Christian is interested in the impact that guard towers would have had on where children chose (or would have been allowed) to play. Another focus is where adults would have chosen to practice activities related to saké and if those places are within or outside the sight of guard towers. Christian believes that the presence of objects related to children and saké represent the places where those activities took place. Their locations may be related to the impacts of surveillance if they are either more or less often found in places visible from the towers. Christian’s analysis of the data collected this summer is ongoing.

Survey

The first two weeks of the field season were devoted to surface survey of barrack blocks 7K, 9L, 11G, 11H, and 11K, and Ground Penetrating Radar (GPR) survey of blocks 11H and 12H. During survey, hundreds of objects were analyzed in the field by the crew, a monumental task undertaken to ensure that most items were left in-place to protect the integrity of the site. Below are the highlights of the survey from each block.
Block 7K

Figure 1: Survey map of Block 7K showing the location of objects and features.
Survey in 7K was completed in the shortest amount of time and revealed the smallest number of objects related to the 2012 research design. 7K also contained only seven features, a relatively low number when compared to the other blocks surveyed in 2012. 7K contained a generalized variety of objects including glass and ceramic objects associated with food consumption and personal objects related to grooming.

Five of the seven features located were identified as gardens, including a pond which was first recorded in 2003. A single trash scatter was also identified. One significant feature was an apparent washing area, identified by the presence of tubs and other laundry associated objects. This area is interesting considering that a formal washing area was provided in the public bath-house building at the center of the block. This informal area may signal the need for more washing facilities due to overcrowding, the desire on the part of some internees for privacy, or even the open view found along the edge of the block.

Figure 2: Photo showing the apparent washing area found in 7K.
Block 11G

Figure 3: Survey map of Block 11G showing the location of objects and features.
11G also contained a low number of objects mostly related to food consumption, as well as low number of features that included a trash scatter and three entryway gardens. A single Go token was the only personal object recovered in the block.

During survey of the southern portion of the block, a feature was found that was unlike any feature previously encountered on-site. Located inside a barrack next to a doorway was a small vault made up of a square hole excavated into the ground and shored up on the side with large flat pieces of concrete. The vault extended to a depth of 40-50 cm below the present ground surface, and is the first indisputable physical evidence of sub-floor pits which many internees recall being used for a variety of activities such as coolers or hiding places.

Stories about sub-floor pits also are a part of Christian’s research. Such a feature very well may have been used to hide materials related to saké, an activity that some former internees remember people their parent’s age being involved in, something that researcher Michelle Slaughter often encountered during her thesis research into saké at Amache.
Block 9L
Survey in 9L has been a goal of the project since excavations in 2008 revealed two almost perfectly oval gardens. 9L is also relevant to Christian’s research as it is a block often referred to in discussions with former internees. Some former internees from 9L remember it as a block where leisure activities like playing cards and music took place. This is especially interesting given its placement in view of a guard tower to the north.

Many objects related to the 2012 research design were selected for analysis and/or collection for further research. Once again, a high percentage of the recovered objects were associated with food consumption, but there was also a high incidence of personal objects such as cosmetic containers, shell buttons, children’s marbles, and shoe fragments. Two of the most unique objects recovered were a stone Go token, and ceramic tiles formed in the shape of leaves.

A number of saké jag fragments were also recovered from 9L, including a base fragment with embossing that identifies a particular saké brewery in Hawaii. The presence of saké jag fragments provides further evidence of internees actively resisting camp regulations.
Figure 6: Fragment of a saké jug base recovered from Block 9L

Preliminary survey of 9L completed in 2008 identified a number of landscaping features including the two large oval gardens in an east-west alignment located within the public area at the north edge of the block. Many more garden features were identified in 2012 such as one that included a pond and non-local species of cactus that was likely intentionally transplanted by internees and deliberately incorporated into the design of the garden.
Figure 7: Photo of Feature 18 showing a hardscaped pond and a non-local cactus species.
Figure 8: Survey map of Block 11H showing the location of objects and features
Survey in 11H recovered a relatively low number of objects associated with the 2012 research design. Of the 46 field objects selected for analysis, only 8 were ceramic, and the remainder were composed of glass and metal.

Of the glass objects analyzed, six were children’s marbles, and one was a possible saké jug base fragment identified by embossing found on the object. A single piece of marine shell was also recovered, signifying a relation to Japanese cuisine practices centered around seafood, traditional gardening practices, or crafts that incorporated such materials known to have taken place on-site.

![Image of abalone shell](image)

*Figure 9: Fragment of abalone shell recovered from Block 11H.*

Like the other blocks surveyed in 2012, a number of landscaping features were located directly associated with barrack entryways in 11H. Of the 12 features found during survey, eight of them were recognized as entryway gardens. However, one interesting landscaping feature was located behind one of the northernmost barracks and consists of a circular collection of limestone with a high number of cactus plants. This may reflect another example of public gardening feature like those found in 9L.
Landscaping Feature 7 located in Block 11H was identified when the survey crew encountered a partially buried concrete wall projecting from the ground. What was unique about the feature was that unlike most entryway gardens, which have their components placed on either side of the barrack entry doors, this wall was located directly across from a doorway, seemingly blocking direct access to it. This arrangement would have led people to change direction as they walked into the barrack, channeling movement around it. Such designs are often an expression of traditional Japanese gardening aesthetics.
Because of its unique nature, Feature 7 was selected for further assessment through the use of GPR. A small grid was set up over the wall feature, and radar data showing what was under the ground in that area was collected. Results of the GPR survey showed that the wall continued underneath the soil and may possibly have run further to the east than originally thought. The results of the GPR survey helped us decide that Feature 7 should be excavated.

Another feature that draws parallels between blocks 11H and 9L is Feature 8. Preliminary survey of block 9L in 2008 located the concrete base on which the boiler for the bath house and laundry facilities had once been located. While the boiler had been removed long ago, what remained were the signatures of several internees who had poured the concrete for the block. Feature 8 in block 11H is another boiler block also sporting several signatures, presumably created by an internee worker named Shiro when the block was being constructed. There are some indications that the construction of some blocks post-date the original construction. If anyone knows of a Shiro who worked on the construction crew, please let us know!

*Figure 12: The boiler block (Feature 8) in Block 11H with internee signatures*
Block 12H

Figure 13: Survey map of Block 12H showing the location of objects and features
Formal survey of 12H was actually completed in 2010. However, since the 2010 field season, barrack number 7 has been selected as a suitable location for site development. Recent research by Colorado Preservation Inc. located one of the barracks sold off by the War Relocation Authority (WRA) at the close of the internment period. It will be returned to Amache for the purposes of restoration and interpretation. In order to see if there was anything of archaeological interest under the surface that may be damaged by the heavy equipment used for the barrack return, GPR was again used. It was also necessary to investigate the area inside the barrack using GPR for any features beneath the surface since the barrack’s return will forever prevent excavation in that area.

![Figure 14: Brush clearance in preparation for GPR survey.](image)

After a day and a half of brush clearance, field school students set up a total of four grids and completed the GPR survey. The results of the GPR showed that there were no sub-surface features located in the path that will be used and therefore nothing is in danger of being destroyed when the barrack is returned to the foundation.
The results of the GPR survey grid from inside the barrack were more promising. An interesting shaped radar reflection was seen in the Southeast corner of the barrack floor and was thought that it might represent an edge to a pit. Because the return of the barrack would prevent any future excavation inside the foundation, excavation was planned for the area in which the promising radar reflection was seen.

Figure 15: Field school students perform GPR survey in Block 12H.
Block 11K was the block with the highest object and feature density of all areas surveyed in 2012. As with other blocks located on the edge of the facility, 11K had an extensive trash scatter that extended a considerable distance from the eastern edge of the block. This trash scatter was the main contributor to the total figure of 263 objects selected for analysis. The number of features associated with 11K was also impressive, 29 features of diverse types were identified including public and entryway gardens, trash scatters, architectural modifications, and several unique features of an unknown nature.
Figure 17: A feature of an unidentified nature found filled with water after a rainstorm in 11K.

One of those unique and unidentified features was something which appeared to be a small square concrete footing. However, upon further inspection, this feature was revealed to actually be a small basin evidently constructed during the internment period. The interior of the basin was constructed with the use of a smooth fine paste concrete, different from that used in the rest of the camp. Pieces of wire were evidently used to construct a form into which the concrete was formed. Impressions in the concrete rimming the outside of the basin give evidence of a possible non-concrete component, possibly a barrel or another type of cylinder which would have sat atop the concrete block at one time, perhaps designed as a tub or deeper basin.
Two of the largest trash scatter features were numbers 9 and 10, one of which (Feature 10) was located inside of the other. Both of these features contained an extraordinary diversity of objects reflecting daily life at Amache, including personal objects, objects associated with alcohol consumption, children’s objects, and a very large number of modified objects.

Figure 18: Example of a Modified can found in Block 11K.

During the 2010 field season, survey of block 12K also located a very extensive trash scatter to the east of the formal block boundaries. The 12K trash scatter also contained a large diversity of object types, including a large amount of modified metal objects. These modified objects were mostly metal buckets and cans with different sized and shaped holes and cuts (often on the bases). The 11K trash scatter is very much like that found in 12K but includes modified objects made of different materials and objects such as wire and tubs.
Test Excavations

Test excavations took place in blocks 9L, 12H, and 11K during the 2012 field season and focused on research questions surrounding landscaping and the possible existence of sub-floor pits that may have been created by internees. All excavations that took place during the 2012 field season were preceded by extensive GPR studies that informed the placement of archaeological test units.

Block 9L

In late 2010, Christian Driver and another graduate student conducted a GPR survey inside the foundations of five barracks in an effort to find evidence of sub-floor pits that may have been dug by internees. After analyzing the data, it was determined that the strongest radar reflection was seen in Barrack block 9L, which showed that something large was located just beneath the surface inside one of the barrack foundations.

Figure 19: GPR data from Block 9L showing interesting radar reflections inside a barrack.
During week three of the Field school, a 1x2 meter unit was placed over the area where the reflection was seen in the GPR profile in order to determine what it was. Immediately after removing the grass that was on the surface, small fragments of brick were revealed in the eastern portion of the unit. These fragments of brick appeared to be fairly densely packed and more of it was seen in the rest of the unit as excavation continued.

![Figure 20: Remnants of the internment period brick flooring found on the interior of a 9L barrack foundation.](image)

Much to the surprise of the excavators, below the layer of fragmented brick was a portion of intact brick flooring likely left over from the internment period. This portion of flooring is made up of many bricks in varying condition and it is thought that the layer of brick pieces above the flooring are fragments from the more decayed bricks.

The portion of flooring is fairly large as well. After the exposure of the floor in the 1x2 meter unit, another 1x1 meter unit was opened to the west which revealed more flooring but not its western edge. The GPR profile shows that the reflection may be several meters long with a width of about a meter.
During excavation and cleaning of the brick flooring, something very interesting was revealed near the southeast corner of the floor remnants. It appeared that a very circular hole may have been cut into the brick to possibly create a small storage area underneath the brick floor of the barrack. This relates to Christian’s research as the hole may have been used to store contraband material. The hole itself was excavated in two halves down to a depth of 44 cm below the brick surface where the soil color changed. Inside the possible storage hole the only materials recovered were brick fragments, however two large pieces of brick very different from those making up the flooring of the barrack were found within the hole, giving evidence that there was at one time a hole in the flooring that was later filled in. The two brick fragments were tentatively identified as decorative brick perhaps for landscaping, yet another link to the gardening activities that internees practiced on-site.
**Block 12H**

Excavation in 12H was a 2x2 meter unit placed over the interesting reflection thought to represent a pit edge. After the removal of the vegetation and roots at the top of the unit, a light brownish yellow soil was encountered with few objects found within it except small to medium sized river-stones, most likely related to the production of the cement for the foundation of the barrack. Lower in the unit small metal objects such as nails, screws, and staples were recovered at an almost uniform depth of 22 cm below the surface with none below that depth. The presence of those kinds of objects which are related to architecture may represent either small objects which fell between bricks during the internment period or when the center was being taken apart. Their presence at a uniform depth may also indicate the level at which the surface existed before the bricks were placed prior to the opening of Amache, or the surface that was exposed when the brick were removed during dismantling of the facility.

No evidence representing the presence of a pit feature was located during excavation of the 2x2 unit and it is thought that the reflections seen in the GPR data may not actually represent the presence of any features beneath the ground inside the foundation. Because nothing significant was found within the unit, the foundation is considered ready for the return of the barrack.

**Block 11H**

Feature 7 was selected for excavation based on the high probability that it represented an extensive garden after its assessment during the surface survey and subsequent GPR investigation. Three 2 x 2 meter units were placed over Feature 7 in an “L” shape in order to cover the locations of interest revealed by the GPR testing such as a possible buried wall and other areas of interesting reflections.
The 11H Feature 7 excavation recovered a significant amount of information and materials related to entryway gardens. The concrete slabs that first drew attention to the feature during surface survey were indeed revealed to be part of a wall. The wall was eventually determined to be about a meter and a half long, and was intentionally placed in-front of the doorway. The use of jagged concrete pieces placed together suggests the feature might have been designed to evoke a mountainscape.

A number of planting holes were also found during excavation. The remains of these holes appear as dark stains once the light colored sterile sand below the topsoil was revealed. The planting holes represent evidence of not only the remains of plants, but also the intentional placement of particular plants by internee gardeners who dug holes for them. Though the particular species has not been determined, their presence again signifies the intentionality of gardening and its design.

The doorway integrated into the garden design served two barrack units in 11H, 9F and 9E. Two gentlemen who lived in 9E are likely to have been involved in designing and maintaining the garden, Zenhichi Sairyo and Kashichi Yokoi. WRA records indicate that Mr. Sairyo was a gardener whose addresses included Beverly Hills and Alhambra. Mr. Yokoi was a nursery operator or flower grower. We hope to find out more about these talented men.
Figure 23: Detail of Feature 7 showing the cedar walkway, a planting hole, and a portion of the garden wall.
The most impressive aspect of Feature 7 was found about 20 cm below the ground surface in the unit located furthest to the north. In all three units, pieces of wood (lumber made of cedar) had been recovered closer to the surface, including a larger piece located next to the western edge of the concrete slab wall. These pieces of wood appeared to be in no particular arrangement and an identification of use of the wood could not be made. However, in the southwest corner of one of the units a concentration of wood fragments were found. However, unlike the other pieces, it was concluded that the pieces were arranged in a particular order. From the top down the wood appeared to be in a lattice arrangement with smaller pieces being arranged perpendicular to two longer bordering planks. At first, it was thought that the wood represented a fence that had once stood in the garden, but further excavation revealed it to be a wooden plank walkway that led to the doorway of the barrack. Such an object in Feature 7 gives very tangible evidence of the elaborate gardening constructions made by internees at Amache.

**Conclusion**

Overall the field season can be considered an unqualified success. The analysis of hundreds of objects found within the six blocks that we investigated this year adds to the treasure trove of information to occupy researchers at the University of Denver and elsewhere who seek to tell the story of Amache and the people unjustly held there by the US government.

Our research continues along the lines of both familiar and new topics, and is enhanced by the discoveries made this year. Evidence of extensive landscaping like that found in block 11H allows us a look into the minds of people who modified the landscape to make it both more livable and more beautiful, the extensive trash scatters found in 11K full of modified objects showcase the ingenuity of internees who often had to make the things they needed for daily life, and the placement of objects in relation to guard towers promises to inform future research into the impacts surveillance had on the internee population.

Though we have already learned much from this field season, more results will soon be forthcoming. Research into landscaping at Amache will be further augmented by the completion of soil chemistry and floral studies conducted by specialists in those fields, students in Professor Clark’s Historical Archaeology class recently completed projects which analyzed objects and features investigated during the 2012 field season, and Christian Driver will be completing a more extensive report on the data collected in the new year. As we move into 2013 we will continue to update the community on our results and as always we appreciate input on any and all aspects of this project!