




# Capturing AMACHE'S Life Story

**E**very other summer since 2008, Bonnie Clark has brought students and volunteers to the Amache Japanese American WWII internment camp in southeastern Colorado to hold history in their hands.

Although four field seasons have yielded thousands of remnants of the internees confined experience, the teams' ability to spatially and historically connect their findings has garnered the most significant fruit: the ability to write the collective life story of the former camp.

"Every field study brings us new insight into how the internees adapted under duress," says Clark, associate professor at the University of Denver's (DU) department of anthropology. "However, all of the objects we have discovered would lack any context without the ability to accurately map their as-found location with GPS technology. The ability to map allows us to see activity in space. For example, finding four marbles within a mess hall garden tells us that this was a play area for kids. Those connections are key to accurately documenting the internees' experience at Amache."

» MARY JO WAGNER



Associate Professor Bonnie Clark uses the Trimble GPS handheld at an excavation site as student Cody Main digs. Clark and her teams of students and volunteers excavated six units during the 2014 field season.





**Top:** Once part of the co-op building, this is the last standing structure at Amache. Pin flags scattered around it mark locations of artifacts.

**Middle:** An intact usu, a mortar used to pound mochi, a sweet sticky rice traditionally prepared for the New Year.

**Bottom:** The most significant find of the 2014 field season was this foundation, which Clark and her teams believe is the structural remains of a furo, a Japanese bath.



## Teachable Moments

Opened in late August 1942, Amache was located one mile outside the small town of Granada, about four hours south of Denver. One of 10 such internment camps, Amache's one-mile-square core contained 29 150-meters-square barracks blocks, each of which contained 12 barracks, a recreational hall, a mess hall and a combined bath house and latrine. There were also a consumer cooperative, a high school and churches. At its peak, Amache housed just over 7,300 detainees, qualifying it as Colorado's 10th largest city. By the time it closed in October 1945, more than 10,000 people of Japanese descent passed through the camp.

Today, barbed wire still rings the central camp area, along with its intact war era roadway system, most building foundations, and remnant landscaping created

by Amache internees, including living trees they planted. As one of the most well-preserved relocation camps in the U.S., Amache offers untold treasures to archaeologists and historians. Clark's crew strives to identify and protect as many as they can, and to share their research findings through interpretative displays for the many visitors drawn to this National Historic Landmark.

To achieve that goal, as well as to provide hands-on teaching moments to students and to offer the chance for the community to reconnect with Amache, Clark launched a four-week, intensive, archaeological field





Once blocks were flagged out, crews returned to collect data on each artifact or feature. Here a team analyzes, photographs and surveys items with the GPS handheld.

school in 2008. Since then, 39 undergraduate and graduate students and 25 volunteers—many of whom are former internees—have contributed to the digging and surveying at Amache.

That sense of urgency against the backdrop of 29 city blocks to survey, graduate student-led teams and temperatures that regularly rise above 100 degrees (38° C), has made Trimble GPS technology a critical element for Clark's success.

"The GPS handhelds are versatile and easy to learn, which is key with students and volunteers who are learning in the field," says Clark. "We could not have collected as much data as we have without them."

## Locating and Mapping Life

The 2014 field season brought a mixed crew of 17 to Amache to predominantly focus on three unexplored barracks blocks.

Clark used existing control points to establish control with the GeoXH 6000 handheld, and to confirm the validity of the GPS data, she tested the accuracy of the data at a range of observation times, beginning with five minutes, down to 60 seconds. At 90 seconds, the accuracy over a stationary point was 10 cm (0.3 ft)—sufficient for their research and, most importantly, their time crunch.

Each morning at 6:00, the group met to plan the day. By 6:30, teams were in

the field. Walking at 2-m (6-ft) intervals, they meticulously searched the ground for artifacts such as shoe heels, porcelain pieces, shards of glass, or remnants of toys, as well as features of interest such as sidewalks, activity areas or landscaping. When they found an object, they marked it with a pin flag—it was not atypical to have 200 flags clustered in one block. Once the block was flagged out, the crew then returned to collect data on each artifact or feature. At each flag, one person analyzed the item, while another photographed and logged it, and the third recorded its exact coordinates with the GPS handheld.

Each afternoon the graduate student supervisors performed quality control on the GPS data and uploaded it to a colleague

off-site who used Trimble GPS Pathfinder office software to further perform quality control and post process the information. He exported the data into GIS software to create user-friendly maps, enabling them to visualize their findings and plan more field work.

The GPS-based data formed the lynchpin information source for subsequent ground penetrating radar (GPR) surveys and for the final exploration step of excavation.

By the end of the field season, Clark and her teams had surveyed three blocks, bringing the total explored blocks to 21. They identified, documented and mapped about 500 artifacts and 50 features with the Trimble GPS devices. In addition, they completed four GPR surveys and excavated six units.

## Singular stories, one collective experience

With each new find, they dug a little deeper into the 7,000 personal stories scattered across the wind-swept terrain.

Stories such as those undoubtedly left in what remains of a sumo ring, found in block 8F. While surveying, they found a noticeably flat area within an otherwise rolling topography. Referencing that against oral history and photographs, Zachary Starke, whose thesis research focuses on traditions practiced in camp, was certain they had found the ring.



This handmade, miniature glass pitcher was found lying in the thick sand next to a Christian church.



Then there is the back-story to a handful of small childrens' toys, including a handmade, miniature glass pitcher lying in the thick sand next to a Christian church—glass work they had not seen before. Survey leader April Kamp-Whittaker, whose thesis research focused on children in the camp, believes it was a make-shift play area similar to a sand box.

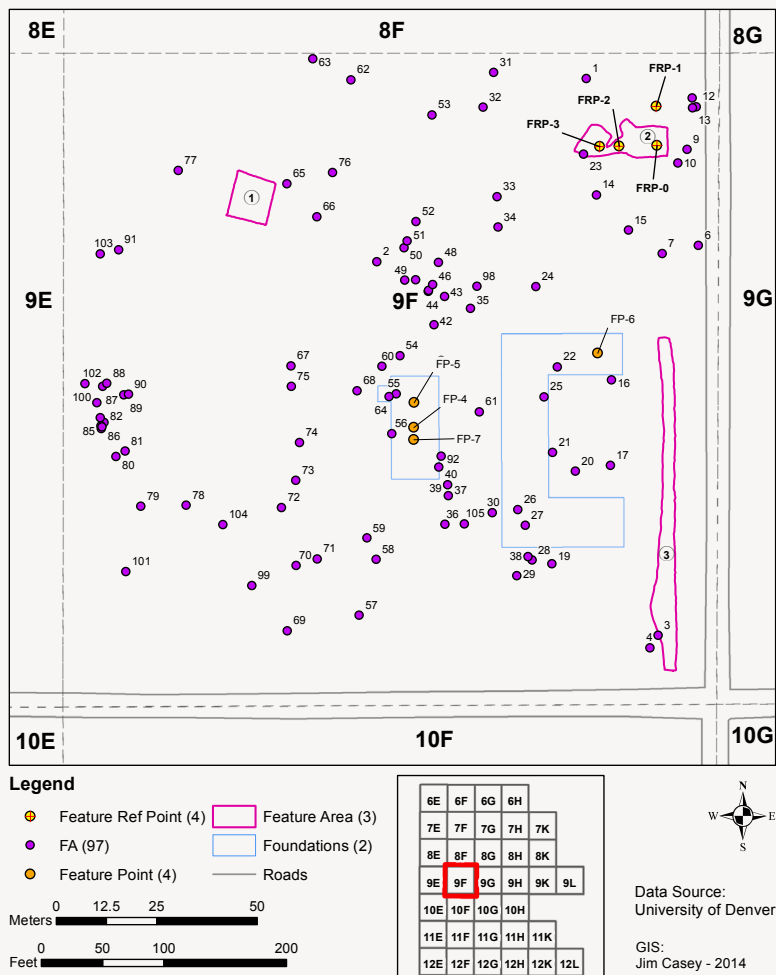
In addition to these new finds, a significant surprise of the season was the remains of what Clark's crew believes was a laundry line, a rarity in the camp. Positioned behind one of the barracks were lumber, wire and buttons. Further convincing evidence was the oral history from a gentleman whose mother had asked him to collect lumber for a line from a nearby construction area. The laundry line remains were found behind the barracks in which he lived. In that same block they also found an usu, a mortar used to pound mochi, a sweet sticky rice traditionally prepared for the New Year.

Clark will have to wait until the next field school to uncover more of the Amache story. But until then, she will continue to connect the spatial dots of life left at and under her feet to weave together an admirable and dignified example of the human spirit at a decidedly undignified time in American history. ■

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## 2014 Features Draft Map Granada Relocation Center / Amache

**Block 9F**  
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Every afternoon, GPS data was processed and exported into GIS software. Blue rectangular features are the remaining co-op foundations. The numbered purple dots are artifacts discovered in the block. The red polygon labeled 1 is the sumo ring.

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