

# THE MAKING OF JACK-O'-CANTERNS AND OTHER MODIFIED CANS AT 1900S LOGGING TOWN IN APEX, ARIZONA

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## ABSTRACT

Modified cans can be any can modified from its original form; it can be as simple as repeated holes punched in with no pattern or purpose or a purposeful modification that changes the purpose of the can. There are many modified cans found at this 1900s logging town in Apex, Arizona. Some are styled to look like Jack-O'-Lanterns, nicknamed Jack-O'-Canters. This is an experiment in how these cans and others like them may have been made using the materials available in the time period. For this experiment, I punctured and cut an unlined paint can with a variety of tools to replicate the marks on cans made at Apex.

## INTRODUCTION TO APEX

Established by the Saginaw and Manistee Logging Company in 1928, the Apex logging camp operated until 1936. It's located 52 miles north of Williams, Arizona along the Grand Canyon Railway in the middle of the ponderosa pine forest. The town had a large population of first- and second- generation Swedish immigrants and their families. The camp demographics also included Mexicans, Europeans, Norwegians, and Finns. The men worked in various positions to harvest timber for the building of railroads, homes, produce crates, and other wood goods. The town was made up of dorms for the workers, family homes, and a school house. Their kids attended what would be one of the only unsegregated schools in Arizona in the 20<sup>th</sup> century (Foley 2024).

## JACK-O'-CANTERN?

Jack-O'-Canters are a type of modified can found at Apex that resemble a Jack-O'-Lantern (Fig. 1). They were made from old-styled food storage cans after they had been emptied. These were likely made by young children at the camp (Fig. 2), most likely between the ages of 7 and 14 (Dale n.d.), at the Apex school during the Halloween season. They used cans rather than foods like pumpkins (the most popular one used for making Jack-O'-Lanterns), radishes, potatoes, and others (HISTORY.com Editors 2019) possibly to reduce food waste in a camp that was further from access to quick food supply.



Figure 2. Photo of the school children at Apex pictured with their teacher (Richmond, 2017:86)

## OBJECTIVE

The goal of the experiment was to test different tools that were available at Apex to replicate the making of the the Jack-O'-Canters on cans that are similar to those at Apex. These items include:

- Flat-sided cans (Unlined paint cans)
- Knives
  - Several varieties (K1-6)
- Hammer and nails
  - Three sizes of nails (Nail 1-3)
  - 4oz metal hammer (H)
- Screwdriver
  - Phillips Head (PS)
  - Flat Head (FS)
- Can Opener (CO)
- Boxcutter (BC)
- Scissors (SC)



Figure 3. The type of can that was used for experimentation, unlined paint cans. Photo by Lucian Hester

Each of these items, pictured in the leftmost image in Fig. 4, was tested using the same type of can that most closely resemble those found at Apex (Fig. 3). The closest modern, available one resembling those found at Apex are unlined paint cans. This means no epoxy, plastic, or other type of liner was applied to the inside to affect the durability and thickness of the can. Modern food cans were not used for this experiment due to the differences in construction of the cans, mainly corrugations along the sides that would change the way tools would puncture the material. The tops and sides of the paint cans were used for all experimentation to limit difference in thickness, material, etc. during experimentation. By the end of this experiment, I identified the most likely tools used used at Apex for making many of the Jack-O'-Canters.

## METHODOLOGY

In this experiment, I tested each tool on a can that had not previously been marked, cut, or punctured (Fig 4.). I then compared each mark against the pictures of modified cans at Apex and the to determine the likelihood of each tool making the known marks. I accounted for both if the tool was found at the site or in the early 1900s, and if the tool made marks similar to what was made to the modified cans at Apex. Each tool was a modern version of what could have been found at Apex for safety. I tested sharp objects, such as the knives, using cuts that made triangular shapes that resemble marking found at Apex. Tools that were more blunt or unable to slice well, such as the nails and the can opener, made puncture marks that went straight down either by itself or will the assistance of a hammer. I tested the can opener and the scissors in two different ways that were special to the specific tool. The can opener was used both in a stabbing motion to puncture straight down and used as intended using the side of the can as leverage to puncture. The scissors were used both closed, with both blades used to attempt to puncture the cans, and opened, using only one blade to puncture. Tools such as the nails and the two types of screwdrivers were both used by themselves and with the assistance of a hammer to exert more force to better pierce the can.



Figure 1. A collection of Jack-O'-Canters found at Apex, posed inside of a car hood. Photo by Makenzie Long.

## ANALYSIS & DISCUSSION

The data shows that the most likely tool used at Apex was a combination of a sharp, possibly serrated, knife, nails and a hammer, and possibly scissors or a workman's knife of some kind. Other tools made similar marking to those seen on the other modified cans (Fig. 4), but they were not included as a possible item used due to not being found at the Apex site, not being widely available, or difficult for a child to use. Other modified cans seen at the site (Fig. 7) may have been made using other piercing instruments instead of what was used for the Jack-O'-Canters. Looking at the three images in Fig. 4, the edges of the cuts and the rough size of the marking show a much closer resemblance to those seen at Apex than the marking made by any other tools. In Fig. 6 and Fig. 8 we can see the recreated cans and the cans from Apex pictured next to each other, when the markings are compared we can see they are extremely similar, especially with the larger can in Fig. 6. In Fig. 9 and Fig. 10 the Jack-O'-Canters are shown light up with candles, similar to how they might have been used at the camp during Halloween.



Figure 8. On the left the reproduced can (photo by Lucian Hester) and on the right the can found at Apex being reproduced (photo by Makenzie Long)

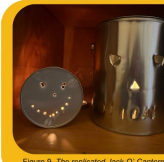


Figure 9. The replicated Jack-O'-Canters, on the left with candles and on the right with no internal lighting. Photos by Lucian Hester



Figure 10. The large replicated Jack-O'-Canters with a candle inside. Photo by Lucian Hester

## RESULTS & KEY FINDINGS

Based on the results of the experiment, I determined that multiple tools markings are similar to those seen on the modified cans at Apex. These tools are (Fig. 4):

- Nail 1-3
- Box cutter (BC)
- Can opener (CO)
- K3 and K5
- Scissors (SC)

When compared to the pictures of cans found at Apex, the markings made by these tools seem the most similar. Out of all items, the nails, the box cutter, and K3 and K5 were the ones most likely used at Apex. The three knives (K3, K5, and K6) were all able to puncture the can, but K6 was particularly difficult to use in cutting the cans and puncturing all the way through without getting stuck when trying to pull it out. This makes doubtful that it would have been used by the children who would have been making these Jack-O'-Canters. K3 and K5 both made clean cuts and were easier to use for puncturing and slicing relative to the other tools used. A few of the Jack-O'-Canters found have square holes, and these were likely made by nails and a hammer. The long slices seen on some of the cans were likely made using a box cutter or knife depending on what was available. The large Jack-O'-Canters made in the experiment (Comparison in Fig. 6) was made using only K5 as it was the easiest to use when puncturing and making markings on the cans. The Jack-O'-Canters was made to replicate the large one found at Apex seen in the center of Fig. 1. The one directly to the left of the large can was also replicated in this experiment, a comparison is seen in Fig. 8.

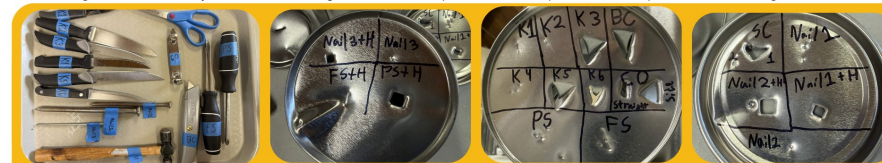


Figure 5. Tools used in the experiment is pictured on the left, three pictures of the markings made by the tools are to the right of the picture of the tools. Photos by Lucian Hester.



Figure 6. On the left the reproduced can (photo by Lucian Hester) and on the right the can from Apex being reproduced (photo by Emily Dale)

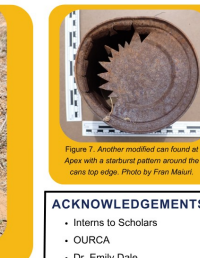


Figure 7. Another modified can found at Apex with a starburst pattern around the cans top edge. Photo by Fran Matur.

## CITATIONS

- Dale, E. (n.d.). Apex, Arizona archaeology project. Anthropology. Retrieved March 5, 2026, from <https://in.nau.edu/departments-anthropology/apex-arizona-archaeology-project/>
- Foley, A. (2024, May 1). Apex Archaeology Project. Story Maps. <https://storymaps.arcgis.com/stories/e532714483d4239becf87a2c55aac83>
- Richmond, Al. (1988). APEX: A Vanished Arizona Logging Community. The Journal of Arizona History, 29(1), 75-88. <https://doi.org/10.2307/41859818>.
- Richmond, Al. (2017) The Story of the Grand Canyon Railway: Cowboys, Miners, Presidents, and Kings. Grand Canyon Association, Grand Canyon, Arizona.
- HISTORY.com Editors. (2019, October 25). How Jack O'Lanterns Originated in Irish Myth. HISTORY. <https://www.history.com/articles/history-of-the-jack-o-lantern-irish-origins>

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**WANT TO LEARN MORE ABOUT APEX?**

Curious about Apex? Scan the code to look at the Apex, Arizona Archaeology Project page on N website.

