What Can This Be?
A Practical Workshop on Tin Can Identification and Analysis

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ABSTRACT:
Cans are a common component in archaeological sites in the Great Basin. The task of recording discarded tin cans on archaeological sites may often seem daunting, but archaeologists armed with basic knowledge about tin can morphology are able to record more meaningful data in less time. This workshop is intended to offer a practical approach to recording and analyzing tin cans. The workshop will focus on how to recognize the most common tin can types and how to identify their chronologically diagnostic characteristics. The workshop will also cover how to use data gathered from the analysis of tin cans to interpret a site. Participants will be given tin can identification handouts with bibliographic references. The workshop format will be hands-on and informal.
# Can Type and Can Function

They are not the same thing!

<table>
<thead>
<tr>
<th><strong>Type</strong> <em>(examples)</em></th>
<th><strong>Function</strong> <em>(examples)</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hole-in-Cap</td>
<td>Fruit/vegetable</td>
</tr>
<tr>
<td>Vent Hole</td>
<td>Milk</td>
</tr>
<tr>
<td>Sanitary</td>
<td>Beer</td>
</tr>
<tr>
<td>Flat-top</td>
<td>Tobacco</td>
</tr>
<tr>
<td>Cone-top</td>
<td>Lard</td>
</tr>
<tr>
<td>Upright Pocket</td>
<td>Cooking Oil</td>
</tr>
<tr>
<td>Flat Fifties</td>
<td>Spice</td>
</tr>
<tr>
<td>Pail</td>
<td>Fuel</td>
</tr>
<tr>
<td>Cylindrical</td>
<td>Tablets</td>
</tr>
<tr>
<td>Oblong</td>
<td>Fish</td>
</tr>
</tbody>
</table>

Type is describing the can form and how the can was manufactured. Function is describing what the original contents of the can were. However, function often dictates can type. For example, it’s not a good idea to store evaporated milk in an upright pocket tin.
Can Characteristics: Side Seams

Description:
Side seams on tin cans function to hold the can together much like the seam on an article of clothing. The earliest cans had plumb side seams which were lead soldered. These cans tended to be very unstable. Lapped side seams have been around since the 1840s. These were also soldered with lead. Locked and double side seams followed in 1859, but lapped seams remained common until the introduction of the Sanitary can in 1904 (Rock 1989b:37-42 and 65).

- Plumb seams are rare in the U.S.
- Lapped seams are common on Hole-in-cap cans.
- Locked seams are common on early specialty cans containing dry goods.
- Double seams are part of the Sanitary can, but are also found on Vent hole, Hole-in-cap, and specialty cans.

Note: you can refer to locked and double side seams as crimped because it is difficult to tell the difference between the two.
Can Characteristics: Side Seam

Hand Soldering

Description:
Seams were soldered to reinforce early hole-in-cap cans and other cans. Solder was applied by hand to the side seam and ends of the can. Hand soldering tends to be sloppy and extends from the top edge to the bottom edge of the can and is often visible around the ends of the can (Rock 1987:7). Hand-soldered cans were replaced by machine-soldered cans during the 1880s.

Hand-Soldered Can

Photo courtesy of the Jim Rock Can Collection in the Southern Oregon University Laboratory of Anthropology and made available by Southern Oregon University Hannon Library.
Can Characteristics: Side Seam
Machine Soldering

Description:
Side seams were soldered to reinforce early hole-in-cap cans and other cans. Machine soldering, introduced in the 1880s, is usually uniform and stops short from the top and bottom edges of the can (Rock 1987:8).

Photo courtesy of the Jim Rock Can Collection in the Southern Oregon University Laboratory of Anthropology and made available by Southern Oregon University Hannon Library.
Can Characteristics:
Hole-In-Cap vs. Vent Hole

Hole-In-Cap

Vent Hole

Note: Depending on the author, these cans are referred to with conflicting names (i.e. hole-and-cap, hole-in-cap, and hole-in-top). The names used here are based on Jim Rock’s work (1984, 1987, 1989a, 1989b).
Vent Hole Cans

**Description:**
Cylindrical can with stamped ends and a double side seam. Small lead soldered vent hole in one end. Typically two small punched holes opening method. Also known as matchstick filler and hole-in-top cans.

**Function:** Milk

**How to record:**
Measure: to 1/16\(^{th}\) of an inch (d x h)
Note: side seam and soldering if any
Note: embossing (i.e. PUNCH HERE)

**Date Range:** 1900-1980s

**Resources for dating:**
Kimball 2014:28
Reno 2012
Rock 1987:18, 20-21
Simonis 1997
Hole-in-Cap Cans

Description:
Cylindrical can with stamped ends and a double or lapped side seam. Lead soldered cap covering a filler hole in one end with a small soldered vent hole. Opened with knife or a can opener. Also known as hole-and-cap. That term is best used for cans with a filler hole and no vent hole in the cap.

Function:
Milk or Fruits/Vegetables

How to record:
Don’t measure unless it is a milk can; instead note single serve if <5 inches in diameter or multi-serve if >5 inches in diameter. Describe side seam.

Date Range: mid 1800s-1920s

Resources for dating:
Reno 2012
Rock 1987:7-8, 12, 19-20
Simonis 1997
Sanitary Cans

**Description:**
Cylindrical can with double rolled end seams and side seams. No soldering. Typically opened with knife or sometimes various can openers.

**Function:** Fruit/vegetable

**How to record:**
No need to measure instead note that the can is single serve if less than 5 inches in diameter or multi-serve if more than 5 inches in diameter. Note embossing.

**Date Range:** 1904-present

**Resources for dating:**
Kimball 2014
Reno 2012
Rock 1987
Simonis 1997
Steel Beverage Cans: Flat Top

Description:
Cylindrical can with double rolled end seams and an double or interlocking side seam. Typically opened with church key opener. Note: Aluminum top or soft top beverage cans are not the same.

Function: beer, juice, soda

How to record:
Measurements aren’t known to help date or type these cans. Photograph lithography. Describe/photograph side seam.

Date Range: 1935-1970s

Resources for dating:
Kimball 2014
Martells 1976
Maxwell 1993
Specialty Cans: Beverage Cone Top

Description:
Cylindrical can with double rolled end seams and an internally rolled side seam. These cans have a distinctive cone top that was topped with a crown cap. Note: Brake fluid was sold in similar cans with a screw cap.

Function: beer, soda

How to record:
Measurements aren’t known to help to date or type these cans. Recording data on the way the can was made and lithography is more important for dating and typing.

Date Range: 1935-1970s

Resources for dating:
Kimball 2014
Martells 1976
Maxwell 1993
Rock 1987:9
Rock 1989:77
Specialty Cans: Baking Powder

Description:
Cylindrical cans with crimped side seam. Some have embossed lids

Function: Baking Powder

How to record:
Photograph embossing
Measure (d x h)

Resources for dating:
Kimball 2014:7
Rock 1987:25-28

Date Range: 1925-1950

Date Range: 1920s-1934

Photo courtesy of the Jim Rock Can Collection in the Southern Oregon University Laboratory of Anthropology and made available by Southern Oregon University Hannon Library.
Specialty Cans: Upright Pocket Tobacco Tins (UPTT)

Description:
Upright oval can with a hinged friction lid. Some UPTT are kidney-shaped.

Function: Tobacco

How to record:
Photograph lithography and tax stamps if present. Note embossing or strike plate typically on base. Measurements not required, but if you do measure (l x w x h)

Date Range: 1901-1988

Resources for dating:
Kimball 2014:8, 36-37
Rock 1987:61-66
Rock 1989:149-152
Specialty Cans: Flat Pocket Tobacco Cans

Description:
Curved slim square can with rounded corners and a hinged lid.

Function: Tobacco

How to record:
Photograph lithography and tax stamp if present.
Measure (l x w x h)

Resources for dating:
Kimball 2014:7
Rock 1987:61-66
Specialty Cans: Key-Wind Open Vacuum Packed Coffee

Description:
Cylindrical cans with crimped side seam, key strip opened. Most with reclosable external friction lid.

Function: Ground Coffee

How to record:
Photograph lithography
Note embossing
Measure (d x h)

Date Range: 1903-1960s

Resources for dating:
Kimball 2014:7, 34
Lanford and Mills 2006
Rock 1987:31-41
Rock 1989:81-91
## Broadbent and Associates TIN CANS Form

<table>
<thead>
<tr>
<th>Feature:</th>
<th>Concentration:</th>
<th>Locus:</th>
<th>Date:</th>
<th>Recorded by:</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>FS #</th>
<th>Count</th>
<th>Type</th>
<th>Side Seam</th>
<th>Size (d x h) or (l x w x h)</th>
<th>Label/Mark</th>
<th>Function/Modification/Description</th>
</tr>
</thead>
</table>

**Total Number of Cans:**

- **selected common TYPES**
  - hole-in-cap, hole-in-top (vent hole), sanitary, beverage (bi-metal, cone top, flat top), drum, nail, upright pocket, lunch box, lid only, cylindrical, oblong, square, oval, flat,
  - abuttled, lapped, crimped, or interlocked

- **Seam**
  - hand, machine, none, or unknown

- **Solder**
  - 16ths of an inch, No. of pounds, ounces, gallons

- **Sanitary Cans Only:** SS-Single serve or MS-Multi-serve

**Density m²:**

- **selected common Types**
  - Beer, Beverage, Oil, Paint, Coffee, Milk, Tea, Utility, Fruit/Vegetable, Meat, Fish, Tobacco, Kerosene, Unknown

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Page _____ of _____
**Tin Can Annotated Bibliography**

Busch, Jane
**1981** *An Introduction to the Tin Can. Historical Archaeology 15(1):95-104*

This article appears to be the first article in *Historical Archaeology* that discusses tin cans as artifacts worthy of study. As an early article on tin cans there are some details that are inaccurate. However, the article is useful for furthering our understanding of the history of tin cans as an artifact.

IMACS

The IMACS guide contains can anatomy drawings, tin can chronologies from a variety of sources, and drawings of tin can openings. There is an old version of Simonis, but the 1997 version is more accurate. A chart with can contents and sizes is included, but be warned that such charts are of little use because there was so much variability in the use of can sizes through time that it is difficult to confidently link can sizes with a particular food. This guide can be found online.

Kimball, Monique E.

This guide is very detailed and includes research from the author on all manner of historical artifacts including tin cans. Besides date ranges for a wide array of can types Kimball also includes a time line for Log Cabin Syrup cans, a compilation of data on tobacco tins, an updated milk can guide based on Simonis, and a peppering of data on patents related to tin cans.

Lanford, Steve and Robin Mills

This is a very detailed and helpful guide for dating and identifying Hills Bros. Coffee cans, but you will need at least some lithography to be able to use it. This guide can be found online.

Markley, Richard
**1992** *An Archaeological Evaluation of Two Chinese Mining Camps on the North Yuba River, Sierra County, California. Tahoe National Forest, Nevada City, CA.*

I am not personally familiar with this resource. It is one recommended to me by Rob McQueen for background on Chinese cans.
Martells, Jack  

This out-of-print book contains details about the history of beer cans and how they were made. It also contains pages of color thumbnail images of beer can lithography organized alphabetically by brand. Each beer can image is accompanied by brand name, type of beverage, brewery name, city and state of brewery, date of can, type of can, and construction. This book is most useful when the beer can has legible lithography, but Martells also includes information for dating beer cans by the morphology of their side seam and pull tab.

Maxwell, D. B. S.  

This article offers information on how to date beer cans based on their morphology. Maxwell presents data on beer cans dating from 1935 through the 1980s. This means the article includes information on aluminum cans. This article also contains numerous photos of beer cans and a beer can stylistic timeline.

Mills, Robin O.  

This two-page guide is pretty much what you would expect based on the title. Mills has assigned date ranges to four separate embossed Lipton Tea tin types based on her research of historical advertisements and tins which retain their lithography.

Reno, Ronald  

The title pretty much says it all. Reno has assembled data from Simonis and other sources and placed them into a handy table with references. You can find this source online.

Rock, Jim  
*1984 Cans in the Countryside. Historical Archaeology 18(2):97-111* 

Rock demonstrates that the study of tin cans is useful for gaining an understanding the behavior of Anglo settlers in the American West. He also offers some useful history on how tin cans were made.

Rock, Jim  
*1987 A Brief Commentary on Cans. Facsimile by Coyote Press, Salinas, California.* 

This is the most commonly distributed work from Rock because it has been published as a facsimile by Coyote Press. The guide is filled with details about the history of cans and how
to date cans based on their morphological attributes. Sometimes you will need to sift through a lot of detail to get the date range you are seeking.

Rock, Jim

Rock, Jim

These two manuscripts are mostly the same. They offer a great deal of information on cans and are arguably the most complete information available about tin cans and how to identify them in archaeological contexts. You can get a PDF of what appears to be the 1989b revised edition on:

http://cdm16085.contentdm.oclc.org/cdm/landingpage/collection/p16085coll5

Rock, Jim
1993 Can Chronology. Facsimile by Coyote Press, Salinas, California

This can chronology is 40 pages long. I’ve found it to be less useful for dating cans from sites than Rock’s more detailed works, but it includes some terrific drawing of cans. Can Chronology has been published as a facsimile by Coyote Press.

Rogers, C. Lynn

I am not personally familiar with this resource. It is one recommended to me by Rob McQueen for background on Chinese cans.

Sagstetter, Beth and Bill

This is a fun book that covers all aspects of the archaeology of mining towns. There numerous photographs and clear description. The authors have also included a section on tin cans (pgs 226-240). Keep in mind that the authors use “Hole-and-cap” where I use “hole-in-cap”.

Simonis, Don

This source offers a way to date milk cans based solely on their size. The date ranges offered are generally accurate, but a number of archaeologists from regions outside of Arizona have
been able to better refine Simonis’ with other can types and updated the date ranges for some of Simonis’ types (Reno 2012 and Kimball 2014).

**Online Sources:**

*Asian American Comparative Collection (AACC)*

2013   Artifact Illustrations. Priscilla Wegars (volunteer curator), Asian American Comparative Collection, Laboratory of Anthropology, University of Idaho. Electronic document, [http://webpages.uidaho.edu/aacc/illus.htm](http://webpages.uidaho.edu/aacc/illus.htm)

This is a useful website for artifacts of Asian origin. There are pictures of opium tins and a tea can.

*Jim Rock Can Collection* in the Southern Oregon University Laboratory of Anthropology and made available by Southern Oregon University Hannon Library. Webpage Address: [http://cdm16085.contentdm.oclc.org/cdm/landingpage/contentdm/cdm16085/coll5](http://cdm16085.contentdm.oclc.org/cdm/landingpage/contentdm/cdm16085/coll5)

This web page includes a series of photographs of cataloged tin cans that had been collected by Jim Rock. The photos are clear and detailed. There are also some handy links to many of Jim Rock’s publications.


This web page is not an archaeology-based source of information. Rather it is from the perspective of modern can manufacturers. It includes a tin can history timeline with images.

**Note:**

Cultural Resource Management Companies, Federal Agency offices and districts, and archaeology groups regularly have useful and detailed unpublished guides for recording, identifying, and dating tin cans. The best guides include references.