

# Overview of BLM's Historic Glass Bottle Identification and Information Website

Bill Lindsey

## ABSTRACT

The United States Bureau of Land Management (BLM) is creating a comprehensive internet website devoted to the dating and typing of glass bottles produced in the United States and to some degree Canada between 1800 and the 1950s. The BLM website provides information allowing users to determine a likely manufacturing date range and use for most U.S.-made bottles or substantial fragments. The website also provides in-depth information on an array of subjects related to the manufacturing of bottles. Currently, the BLM website is almost complete, with full completion expected in 2007, although most sections are fully useable now.

## Introduction

The United States Bureau of Land Management (BLM) administers and manages the largest land base of any entity in the United States—261 million acres of public lands located almost exclusively in the American West and Alaska. Part of the mission of the BLM is the management and preservation of cultural and heritage resources found on public lands, both prehistoric and historic.

Discovering, studying, and understanding the evidence of past human influences on the land provides the BLM background information that is critically important in the process of determining appropriate land uses today and in the future. Many historic sites located on public lands contain information important to the understanding of a particularly vibrant era in American history—the trans-Mississippi migration and settlement of the American West. The recording, interpretation, and protection of historic sites are critical and mandated missions of the agency. The proper study and understanding of historic sites on public lands entails the use of analytical tools that assist in dating and interpreting occupation details and time period of a given site or landscape. Among the most

common artifacts found on historic sites are discarded bottles and bottle fragments.

Currently, the information needed to have a reasonable chance at dating, typing or determining the likely use of historic bottles is scattered in hundreds of different, usually narrowly focused, professional and avocational publications, many of which are difficult to nearly impossible to obtain. A good example of a high quality but narrowly defined work is the classic *Bottle Makers and Their Marks* by the late Julian Toulouse (1971).

Few attempts have been made at consolidating these diverse works into a single user-friendly guide. Probably the most notable attempt was *The Parks Canada Glass Glossary* (Jones and Sullivan 1989). The *Intermountain Antiquities Computer System (IMACS) Guide*, to which BLM was a contributor, was another effort to create an interpretive aid for historic artifact identification through a section on bottles (University of Utah 1992). Both of these guides were attempts "... to provide archaeologists with a manual for a standard approach to arriving at historical artifact function and chronology" (University of Utah 2001). They are useful works but dated and constrained in scope. In addition, neither has been updated in recent years; Jones and Sullivan is out of print and largely unavailable.

## BLM's Historic Glass Bottle Identification and Information Website

Simply stated, the BLM's Historic Bottle Website is an attempt to combine, consolidate, and interpret all pertinent and available historic bottle-related information into one source using the most modern and flexible of publishing forums, the internet <[http://www.blm.gov/historic\\_bottles/index.htm](http://www.blm.gov/historic_bottles/index.htm)>. This website is intended to provide a user-friendly information source that will allow both the cultural professional and general public a chance at greater understanding of the history and evolution of historic bottles in the United States and, to a lesser degree, Canada.

This history of American glass bottles touches on and connects with the transition from a craft-based to industrial based economy, 18<sup>th</sup> and 19<sup>th</sup> century technological change, the settlement of the United States, cultural patterns and changes, and more.

Nominally, the BLM has justified and facilitated the preparation of the Historic Bottle Website as an extension of agency responsibilities intended to assist internal and external cultural professionals, other employees, contractors, and volunteers in the pursuit of agency goals in the BLM's cultural resources management programs. The website does, however, have much broader external appeal and is already being accessed extensively by archaeologists, government and private institutions, and individuals throughout the world.

The information found on the BLM's Historic Bottle Website is presented via the Internet for several reasons. First, to answer or address questions related to the dating and typing of a bottle, an extensive amount of information must be presented in a way that is easily accessible to the user. A major benefit of using the Internet to accomplish this task is the ability to use hundreds or thousands of illustrative pictures—an attribute that would not be possible or affordable if in book form. The Internet also allows for ease of revising or adding new information as it becomes available. As soon as the information is incorporated into the webpage and reloaded on the BLM server, it is available to everyone immediately, another attribute not possible with a printed publication. Finally, the ability of the Internet to reach more potential users than any other communication medium makes it a most powerful tool for education and enlightenment today.

### Goals of the Historic Bottle Website

The Historic Bottle Website is primarily designed for field archaeologists trying to identify and date bottles or bottle fragments that are found during cultural surveys and excavations in the United States and more generally for anyone trying to date a bottle, determine what it was used for, or begin a search for information on historic bottle types and technologies. Second, it is intended to provide a teaching resource for educators dealing with the subject of bottles in historic archaeology and material culture studies.

The overriding goal of the Historic Bottle Website is to enable a user to answer two primary questions about most utilitarian bottles and jars produced in the United States and Canada between the early 1800s and 1950s (see Figure 1 for a range of these types). These include:

1. What is the age of the bottle? (bottle dating)
2. What type of bottle is it? (bottle identification or typology)

The site also assists the user with three additional and related bottle questions:

3. What technology, techniques, or processes were used to manufacture the bottle?
4. Where did the bottle come from, where was it made and what is its distribution in the United States?
5. Where can more information on historic bottles and bottle manufacturing technologies be found?

### How to Use the Historic Bottle Website

If a user is attempting to determine the approximate manufacturing date or age of a bottle or fragment with diagnostic features, the first page to visit is the Bottle Dating page and related subpages <[www.blm.gov/historic\\_bottles/dating.htm](http://www.blm.gov/historic_bottles/dating.htm)>. This group of pages leads a user through a series of questions about the physical or morphological characteristics of historic bottles that helps to narrow down the age of an item. These pages are the major hub of the website and the best place to start a search. Also linked to the Bottle Dating page is a subpage called Examples of Dating Historic Bottles that tracks different bottles through a dating and general information quest to illustrate how the website works.

If a user is interested in identifying what a bottle was likely used for or what type of bottle it is, the Bottle Typing/Diagnostic Shapes page and related subpages should be visited <[www.blm.gov/historic\\_bottles/typing.htm](http://www.blm.gov/historic_bottles/typing.htm)>. These include bottle type-specific subpages with extensive style and dating information. Beyond Bottle Dating and Bottle Typing, numerous other specialty pages cover various aspects of historic bottles in greater depth including Bottle Finishes and Closures, Bottle



**Figure 1.** Grouping of historic American-made bottles dating from the 1830s to 1930s. (Photo by author, 2003.)

Bases, Bottle Body Characteristics and Mold Seams, Bottle Glass Color and Glassmaking and Glassmakers. The site also provides an extensive Bottle Glossary and a comprehensive Reference Sources/Bibliography.

None of the Historic Bottle Website pages are fully inclusive since related information is typically spread over many pages. For example, there is information pertinent to dating bottles on virtually every page within the website, not just the Bottle Dating complex of pages. The title of any given page gives the predominant theme of that page and would be the first place to start when pursuing information on that particular subject. Because the processes of bottle dating and identification can be complex, there is a need for many web pages incorporating an abundance of descriptive information. Users need to spend some time viewing different pages.

### **Attributes and Limitations of the Historic Bottle Website**

Since there were several hundred thousand different bottles produced in the United States between 1800 and the 1950s, it is beyond the capability of this or any website or book to provide more than a fraction of data and information related to historic bottles (Fike 1987). The BLM website primarily helps a user determine some key facts about a bottle—approximate age and function—based on observable physical characteristics.

Historic Bottle Website users will note that bottles produced in the United States are strongly emphasized. This geographical limitation is followed for the following reasons.

1. The art and science of bottle dating and typing is a very complex subject when focus is upon the history

of glassmaking for one specific country, in this case the United States. To cover all or most of the world would entail research that is well beyond the funding available for this project and knowledge base of the website's author. A broader geographical scope would entail the creation of a massive website with so many exceptions and regional variations as to significantly reduce the utility found in just focusing on American made bottles.

2. During the late-19th and early-20th centuries (1890 to 1920), American bottle manufacturing technology generally progressed faster than European and Asian glassmaking. This resulted in European and Asian bottles from the early-20th century showing some manufacturing-based traits that would date them as 20 or 30 years older if they had been produced in the US.
3. The Bureau of Land Management is an agency of government that manages lands exclusively in the United States - lands that are virtually all in the American West and Alaska. The bottles most likely to be found during cultural surveys on these lands are those produced in the United States. Although foreign produced bottles are found with regularity during surveys, they are typically a minority.
4. The United States government funds The Historic Bottle Website and it is appropriate that BLM place its emphasis on bottles with most interest to American citizens.

That said, the information on this website is generally applicable to many bottles produced in Canada since its glassmaking history closely parallels that of the United States. In fact, a significant amount of information used in the creation of this website was produced by Canadian historic archaeologists and collectors. It should be noted, however, that there are manufacturing and stylistic trends for Canadian bottles that parallel English bottle making and styles, particularly with many liquor, soda, and beer bottles (Watson and Skrill 1971; Watson et al. 1972; Urquhart 1976; Unitt 1980a, 1980b). What is generally true for Canada to the north is not necessarily true for Mexico to the south. Mexico was slower to implement new techniques and processes and in fact, continued to use mouth-blown processes

for many utilitarian bottles well into the mid-20th century.

### Future of the Historic Bottle Website

Currently, the basic structure and content of the *Historic Bottle Website* is almost complete, with most portions fully functional to users pursuing historic bottle information relative to the noted goals. This website will also be, in a sense, always a work in progress as it is the intention of the website author to continually update, refine, and broaden the website's information base in the future with the ultimate goal of allowing all users an ever increasing opportunity to gain substantive information on the majority of bottles produced in the United States between 1800 and the 1950s. New or newly found information will always become available and will be incorporated into the site periodically and indefinitely. It is expected that the BLM will facilitate and sponsor this website on the internet indefinitely.

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**Bill Lindsey**

Bureau of Land Management  
Klamath Falls Resource Area  
2795 Anderson Ave., Building 25  
Klamath Falls, OR 97603  
<[William\\_Lindsey@or.blm.gov](mailto:William_Lindsey@or.blm.gov)>