

# Historic Button Type Collection

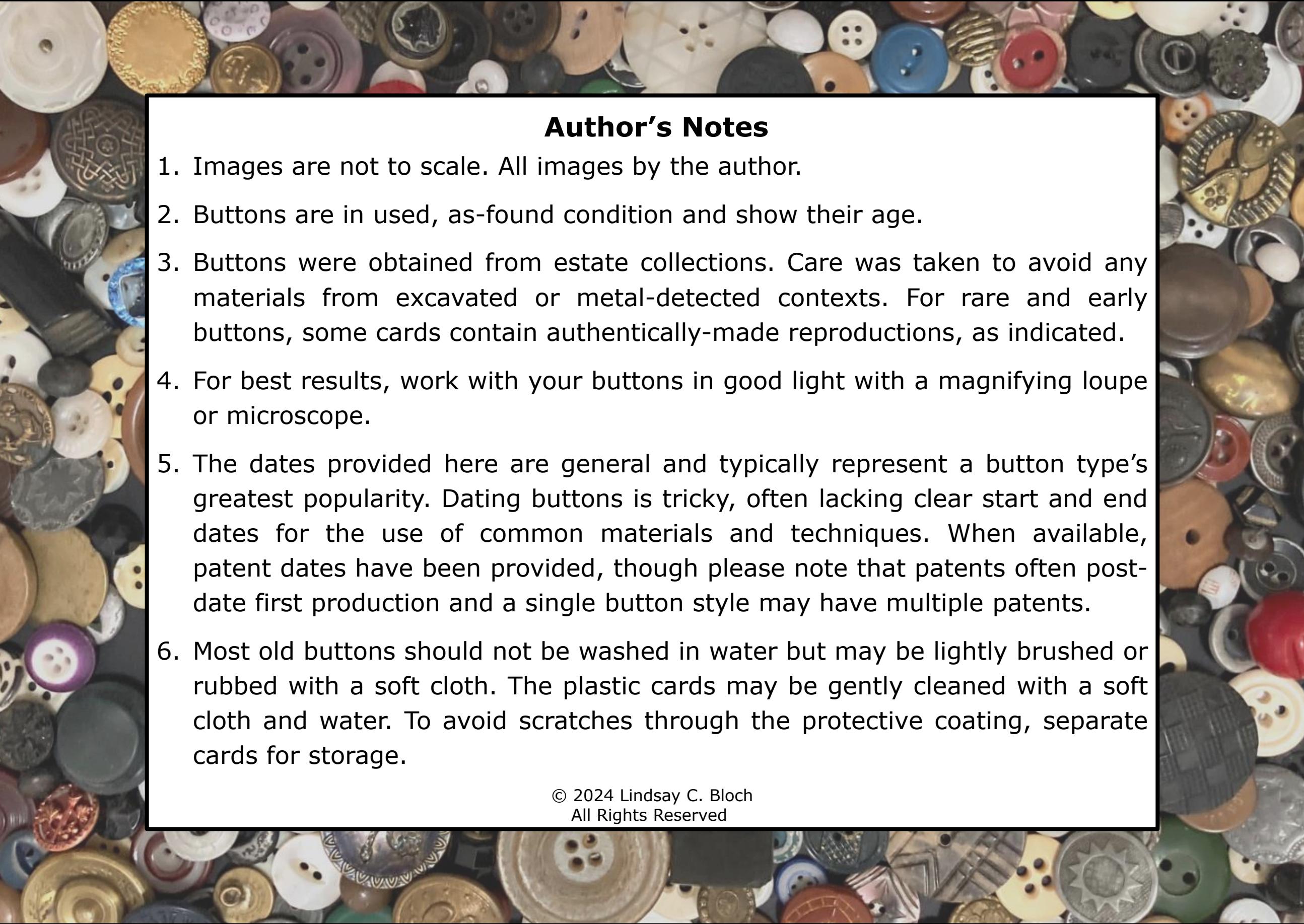
ca. 1700 – 1950

Written and designed by Lindsay C. Bloch

This guide is designed to provide a hands-on reference for the identification of buttons by their material, form, and manufacturing method, specifically for the use of archaeologists and those interested in historical clothing and adornment. Buttons are charismatic finds and often offer useful dating or contextual information, but their relative rarity and poor preservation in archaeological contexts makes them challenging to identify. The guide provides specific diagnostic information regarding how buttons may appear when recovered archaeologically, as well as tips to identify button function and to distinguish look-alike materials.

Most existing button guides emphasize decoration and highlight rare items. Instead, the buttons in this collection represent the most common types worn daily by people of all classes. The majority of buttons would be classified as utilitarian: designed for function and practicality over aesthetics or status displays. The guide also includes perishable button materials which may be rare archaeologically but represent some of the most popular fasteners and adornment items for their time.

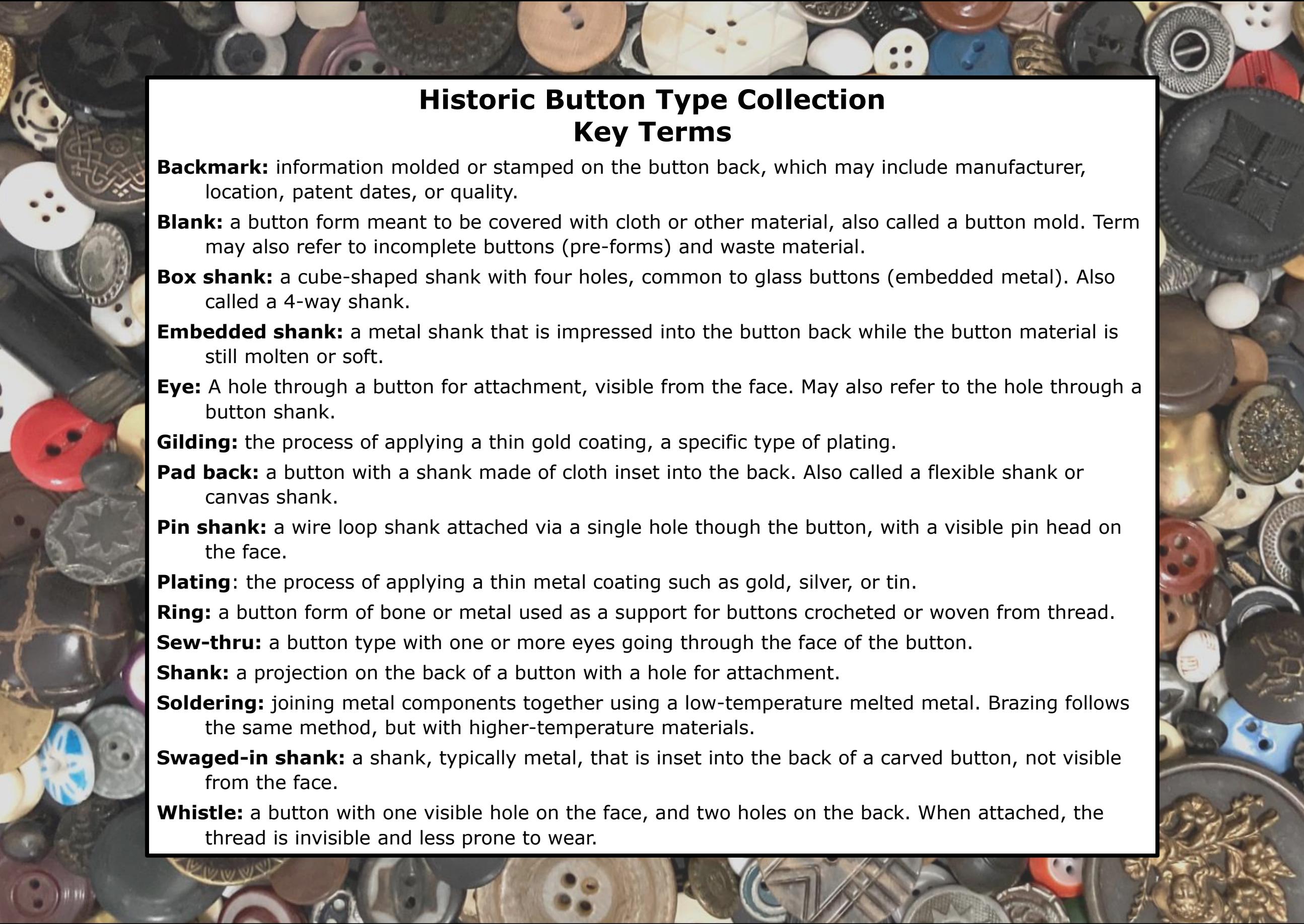
**Cards:** Flat Disc, Bone, Shell, Glass, Porcelain (Prosser-molded), Rubber, Two-Piece Metal, Wood, Fiber, Metal Workwear, Horn, Vegetable Ivory, Composition, Early Plastics, Key Terms/Resources



## **Author's Notes**

1. Images are not to scale. All images by the author.
2. Buttons are in used, as-found condition and show their age.
3. Buttons were obtained from estate collections. Care was taken to avoid any materials from excavated or metal-detected contexts. For rare and early buttons, some cards contain authentically-made reproductions, as indicated.
4. For best results, work with your buttons in good light with a magnifying loupe or microscope.
5. The dates provided here are general and typically represent a button type's greatest popularity. Dating buttons is tricky, often lacking clear start and end dates for the use of common materials and techniques. When available, patent dates have been provided, though please note that patents often post-date first production and a single button style may have multiple patents.
6. Most old buttons should not be washed in water but may be lightly brushed or rubbed with a soft cloth. The plastic cards may be gently cleaned with a soft cloth and water. To avoid scratches through the protective coating, separate cards for storage.

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## Historic Button Type Collection Key Terms

**Backmark:** information molded or stamped on the button back, which may include manufacturer, location, patent dates, or quality.

**Blank:** a button form meant to be covered with cloth or other material, also called a button mold. Term may also refer to incomplete buttons (pre-forms) and waste material.

**Box shank:** a cube-shaped shank with four holes, common to glass buttons (embedded metal). Also called a 4-way shank.

**Embedded shank:** a metal shank that is impressed into the button back while the button material is still molten or soft.

**Eye:** A hole through a button for attachment, visible from the face. May also refer to the hole through a button shank.

**Gilding:** the process of applying a thin gold coating, a specific type of plating.

**Pad back:** a button with a shank made of cloth inset into the back. Also called a flexible shank or canvas shank.

**Pin shank:** a wire loop shank attached via a single hole though the button, with a visible pin head on the face.

**Plating:** the process of applying a thin metal coating such as gold, silver, or tin.

**Ring:** a button form of bone or metal used as a support for buttons crocheted or woven from thread.

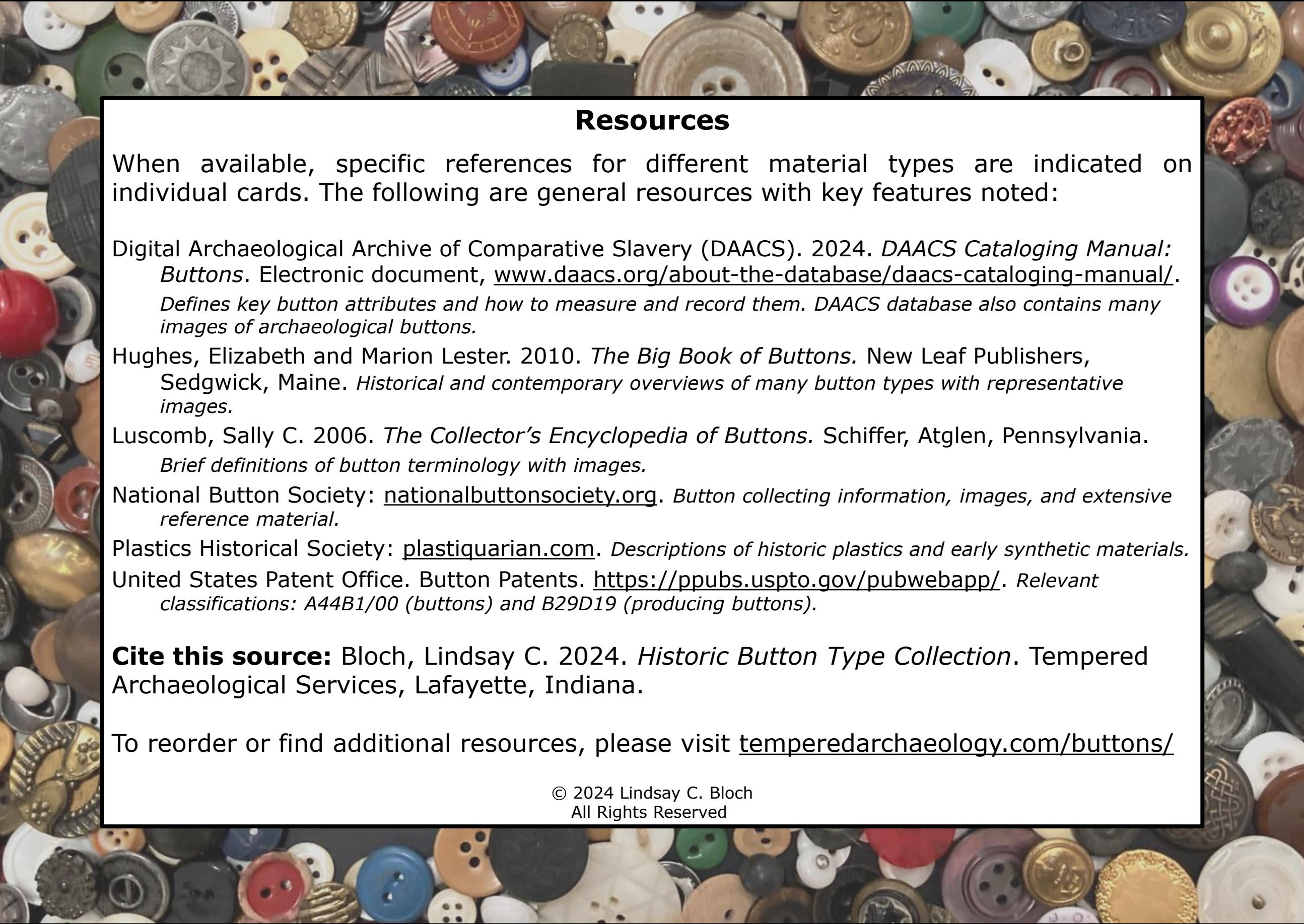
**Sew-thru:** a button type with one or more eyes going through the face of the button.

**Shank:** a projection on the back of a button with a hole for attachment.

**Soldering:** joining metal components together using a low-temperature melted metal. Brazing follows the same method, but with higher-temperature materials.

**Swaged-in shank:** a shank, typically metal, that is inset into the back of a carved button, not visible from the face.

**Whistle:** a button with one visible hole on the face, and two holes on the back. When attached, the thread is invisible and less prone to wear.



## Resources

When available, specific references for different material types are indicated on individual cards. The following are general resources with key features noted:

Digital Archaeological Archive of Comparative Slavery (DAACS). 2024. *DAACS Cataloging Manual: Buttons*. Electronic document, [www.daacs.org/about-the-database/daacs-cataloging-manual/](http://www.daacs.org/about-the-database/daacs-cataloging-manual/).  
*Defines key button attributes and how to measure and record them. DAACS database also contains many images of archaeological buttons.*

Hughes, Elizabeth and Marion Lester. 2010. *The Big Book of Buttons*. New Leaf Publishers, Sedgwick, Maine. *Historical and contemporary overviews of many button types with representative images.*

Luscomb, Sally C. 2006. *The Collector's Encyclopedia of Buttons*. Schiffer, Atglen, Pennsylvania.  
*Brief definitions of button terminology with images.*

National Button Society: [nationalbuttonsociey.org](http://nationalbuttonsociey.org). *Button collecting information, images, and extensive reference material.*

Plastics Historical Society: [plastiquarian.com](http://plastiquarian.com). *Descriptions of historic plastics and early synthetic materials.*

United States Patent Office. Button Patents. <https://ppubs.uspto.gov/pubwebapp/>. *Relevant classifications: A44B1/00 (buttons) and B29D19 (producing buttons).*

**Cite this source:** Bloch, Lindsay C. 2024. *Historic Button Type Collection*. Tempered Archaeological Services, Lafayette, Indiana.

To reorder or find additional resources, please visit [temperedarchaeology.com/buttons/](http://temperedarchaeology.com/buttons/)

# Flat Disc

a.k.a.: Coin, Colonial  
post-1700



**Description:** Solid metal buttons with flat or slightly domed faces and loop shanks. They are typically composed of copper alloy (i.e., brass, bronze, tombac), tin alloy (i.e., pewter), lead, or steel though precious metals are possible. The faces appear either gold/copper ("yellow") or silver/gray ("white").

**Manufacturing Technique:** May be cast (multiple materials) or stamped from sheet metal (Cu alloy or steel). Cast buttons can have cast or embedded wire shanks; stamped buttons have soldered shanks.

**Decoration:** Many were gilded/plated using gold, silver or tin to produce shiny surfaces. Faces may be decorated by molding, stamping, or wheel engraving. After 1800, stamped backmarks with makers' names, locations, or descriptors (e.g., "Treble Gilt," or "Extra Rich") become common.

**Diagnostics:** Cast buttons may have mold seams or "spun-backs" with concentric trimming marks, leaving a hump around the shank. Cast shanks are often off-center. Stamped buttons tend to have sharper edges. Brazed/soldered shanks may be missing, though solder scars usually present. Gilding/plating material will typically be worn or missing.



pewter cast shank

cast Cu alloy,  
spun back

stamped Cu alloy

Note: due to scarcity; this card  
may contain reproductions.



Stamped Cu alloy button  
backmarked "GILT."

# Flat Disc

post-1700

a.k.a.: Coin, Colonial

**History:** Flat cast metal buttons have been produced from the post-Medieval period onwards. They were simple to manufacture and were made within households as well as commercially. Stamping buttons from sheet metal developed via mechanized processes associated with the Industrial Revolution.

## Selected Dates of Production:

**Cast, drilled eye:** post-1700

**Cast, cast eye:** post-1700 (some say 1750)

**Cast, pewter wire eye (aka "hard white"):** 1800-1830

**Cast, Cu alloy spun back (often tombac):** 1760-1800

**Stamped, alpha shank:** 1770-1800 (straight attachment)

**Stamped, omega shank:** post-1800 (splayed attachment)

**Stamped, backmarked:** post-1800

**Usage:** Flat disc buttons are associated with male clothing, especially coats, waistcoats, and trousers. They were part of military regalia and daily wear.

## More Information:

Hinks, Stephen. 1988. A Structural and Functional Analysis of 18<sup>th</sup> Century Buttons. M.A. thesis, Department of Anthropology, The College of William and Mary, Williamsburg, VA.

Olsen, Stanley J. 1963. Dating Early Plain Buttons by Their Form. *American Antiquity* 28(4):551-554.

South, Stanley. 1964. Analysis of Buttons from Brunswick Town and Fort Fisher. *Florida Anthropologist* 17(2):113-133.



Reproduction cast pewter button showing original white metal color.



Tin-plated cast pewter



Stamped steel with cut facets



Stamped Cu alloy with remnant plating in backmarks.



Stamped Cu alloy with engraving and two colors of gilding.

# Bone

pre-1940



4-hole



5-hole



Dyed brown, front and back



**Description:** These hard and opaque utilitarian buttons may be either natural ivory-bone color or dyed, appearing brown, black, or gray. The majority are one piece sew-thrus with two to five holes. Solid or one-holed button blanks and bone rings for thread buttons and lingerie were also made.



Dyed, faded black



Underwear

**Manufacturing Technique:** Cut or carved from animal bone. Holes were drilled.



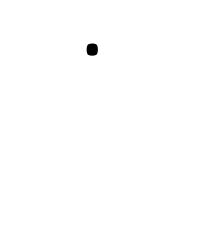
4-hole



Visible bone structure, front and back



**Decoration:** Typically undecorated. Bone blanks were used as the base for buttons with facings of textile, metal, and other materials. Carved or painted decoration is possible.



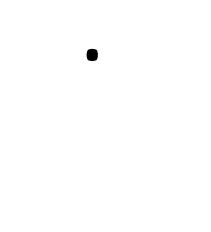
underwear



Spongy inner bone surfaces



**Diagnostics:** Bone has a striated structure with fine dark marks. On some buttons, portions of the spongy inner bone are present. Edges and holes may show tool marks. Excavated bone, or bone damaged by water and heat can be delaminated, darkened, and lightweight, superficially resembling wood. Breaks are splintery.



dyed



Weathered texture



Bone rings



Blanks



Crochet covered blank, front and back



Button with bone back, face covered with abalone shell, bone, and tortoiseshell.

# Bone

Pre-1940

**History:** Bone buttons predate the historic period, made industrially and within households. Animal long bones, typically cow, were boiled or steamed to soften, then cut lengthwise and flattened. Scapulae and other flat, thin bones could also be used. A brace and bit was applied to drill out circular buttons blanks, which were then finished with drilled eyes. Note that the term “blank” is used both for the resulting bone waste material, as well as the button pre-forms, molds, and rings made to be covered by cloth or other materials.

**Usage:** Bone buttons were cheap but durable, making them ideal for utilitarian functions including underwear, trouser, and suspender buttons. Bone was also carved to produce collar studs, eyelets, and related clothing fasteners. Over the first half of the twentieth century, bone buttons were largely replaced by other materials.

## Why 5-holes?

Typically, the central hole was made by the bit used to cut the blank. 4-hole buttons may have small divots in the same location. Sewing through the fifth hole would provide extra strength but was not always done. 5-hole buttons are considered older than 4-hole buttons, but there is no specific end date for their manufacture.



Bone may be superficially similar to ivory and antler. Ivory is very dense and fine-grained with faint striations (top). Antler was typically cut to retain the ridged exterior (bottom).



20x magnification of bone showing striations.



Bone collar studs and eyelets.

# Shell

*a.k.a.:* Mother-of-pearl,  
MOP, Pearl

Pre-1950

(marine: rare until 19<sup>th</sup> century; freshwater: post-1889)

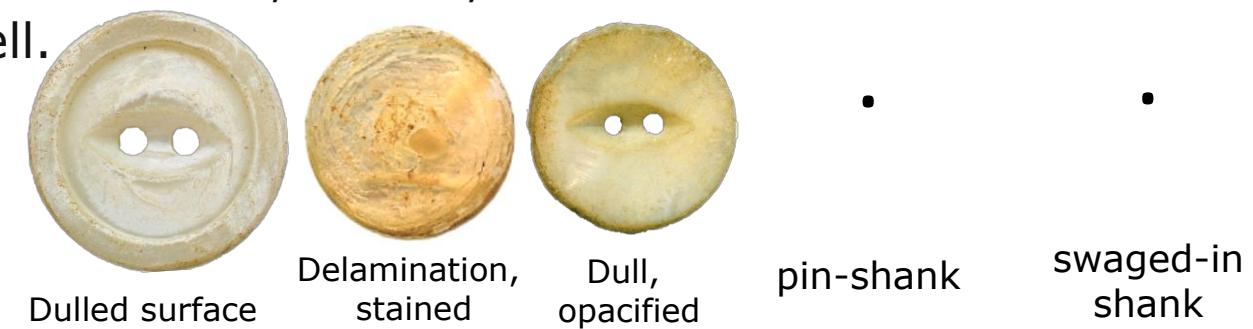


**Description:** Made from freshwater or marine shell, the material is dense and hard but may splinter. The body is typically white or cream colored, but can be gray or brown (collectors call this “smoked”). Utilitarian sew-thru two- or four-hole buttons are most common. Buttons may also have carved self-shanks, swaged-in metal shanks, or pin shanks.

**Manufacturing Technique:** Cut and carved.

**Decoration:** May be carved, painted, dyed, or have metal trimmings.

**Diagnostics:** The shell layers and pearlescence are usually visible. Back may show darker and rougher shell surface. The carved lines are crisp. Water, heat, and burial can cause shell to develop a chalky texture, turn dull or opaque, delaminate, and/or stain. Freshwater mussel shell is very common in US contexts and tends to be thicker, whiter, and less lustrous than marine shell.





Large and ornate pin shank buttons are the most identifiable shell buttons of the 18<sup>th</sup> century.

# Shell

## Pre-1950

*a.k.a.:* Mother-of-pearl,  
MOP, Pearl

**History:** Marine shell buttons were reserved for the wealthy until the expansion of Pacific trade in the nineteenth century. German immigrant John Boepple is credited with starting the American shell button industry in 1889 when he began making buttons from freshwater mussels collected on the Mississippi River. By 1905, Muscatine, Iowa had become "Pearl City," producing over 35% of the world's buttons. Many factories operated along the river until the mid-1900s, when the overharvesting of mussels coupled with advances in plastics prompted a shift away from shell.

**Usage:** Pearl buttons were used for men's women's, and children's clothing, in utilitarian and decorative applications. Some were made purely for adornment and may be as small as 1/8 inch in diameter.

Shell buttons were susceptible to breakage during washing. Pearl buttons made to match white uniforms (e.g., doctors' and nurses') were often used with cotter pins to detach easily for laundering. Plastic faux mother-of-pearl has replaced most shell buttons, but they are still used by some clothing manufacturers.



Carded shell buttons, made in the USA. Early 20<sup>th</sup> century.



So-called "dimi" shell buttons with dime for scale.



Pin-shank shell button with cotter pin.

# Glass

a.k.a.: French Jet

Post-1840



Cut facets      Engraved      Marbled



Molded faux beading and cut steel



Matte      Luster      Enameled



Wound and molded, swirl backs



Embedded wire shank      Hump shank



Shank with back plate      Box shank with grooves

**Description:** Shiny, hard and dense, though often chipped or scratched. The most common color is black, but all colors are possible. May be transparent, translucent, or opaque. Self shanks or embedded metal shanks are most common, though sew-thru button styles are also found.

**Manufacturing Technique:** While early glass buttons were wound like beads, most were press molded or cast. Shapes are often complex and ornate.

**Decoration:** The glass may be colored, marbled, or have embedded materials. Surfaces may be enameled, gilded, mirrored, or matte. Molding is typical; some have cut faceting or etching. Decoration can imitate cloth, beading, or metals.

**Diagnostics:** Strong light will penetrate. Button backs may have a faint wrinkled or striated appearance from the pressing of cooling glass in molds. Breaks are sharp and body is not grainy. Patination is common but preservation otherwise good.



Whistle button,  
embedded shank



Sew-thru



Self shank



French Jet

back plate      self-shank

whistle

box shank

Czech

sew-thru



20<sup>th</sup> c. faux pearl buttons of painted milky glass with wire or self-shanks.

# Glass

## Post-1840

*a.k.a.: French Jet*

**History:** Glass button manufacturing derived from glass bead making during the post-Medieval period. Early buttons of glass or containing glass "paste" jewels were luxury items. By the 1840s, glass makers in Europe were producing buttons for export. Germany, Austria, and Czechoslovakia remained major glass button producers well into the twentieth century.

### Selected Patents and Dates:

**Wire shank with swirl back:** 1840-1870s

**Embedded wire/staple:** 1840-late 19<sup>th</sup> c., 1865 US 48082

**Wire shank with plate:** 1868 US 74764

**Whistle, wire shank:** 1883 US 285125

**Embedded hump shank:** late 19th-early 20th c.

**4-way box shank with grooves:** late 19th-early 20th c.

**4-way box shank, no grooves:** early 20th c.

**Self-shank:** late 19<sup>th</sup> c., most post-1920

**Sew-thru:** 20<sup>th</sup> c.

**Usage:** Glass was used to imitate precious gems, jet, and pearls. Matte black glass buttons and jewelry were popularized for mourning attire by Queen Victoria in 1861. By the late nineteenth century, glass was common for both decorative and utilitarian functions.



1920s/30s diminutive glass buttons with molded and enameled decoration, most likely made in Czechoslovakia. Largest is 0.5 inch.



Early 20<sup>th</sup> c. molded glass beads with flat or hollow backs made for clothing embellishment.



Undecorated

Luster

Underwear



Dyed

Dyed,  
enameledDyed,  
3-hole

Domed, shanked



Stenciled

Molded edge,  
"piecrust"

Transfer-printed

Molded edge,  
"hobnail"

Enameled

Two-piece whistle;  
front and back

# Porcelain

*a.k.a.:* Prosser-molded,  
China, Agate

Post-1840

**Description:** Ceramic that is glassy, hard, and occasionally translucent. The body is typically white or cream-colored, but may be dyed, especially black and brown. Button shape is usually a round two- or four-holed sew-thru, but three-holed, whistle, and domed or conical buttons with metal shanks were also made.

**Manufacturing Technique:** Press molded.

**Decoration:** Porcelain buttons are glazed and may have molded decoration, paint/enamel, luster, stencil, or transfer-printed (a.k.a. "calico") patterns. Most are undecorated.

**Diagnostics:** Porcelain buttons usually have an orange peel texture on the underside, but some backs may be ground flat. Broken edges have a smooth texture, but the body is more grainy and less glossy than glass. While body may develop staining and decoration erodes, preservation is generally good.

Pin-shank  
shoe button

Back, orange-peel texture



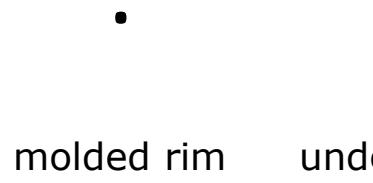
Back, ground



white



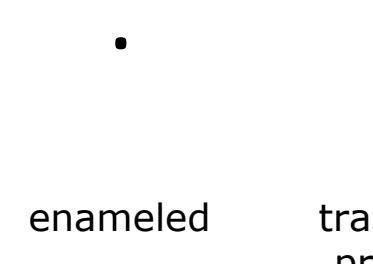
dyed



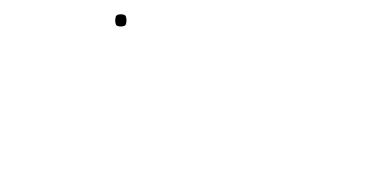
molded rim



underwear



enameled

transfer-  
printed

stenciled



shanked



Early 20<sup>th</sup> century stenciled button  
for children's clothing or toys.

# Porcelain

Post-1840

*a.k.a.:* Prosser-molded,  
China, Agate

**History:** Porcelain buttons were some of the first buttons to be industrially made. In a process first patented by Richard Prosser in England, powdered porcelain ingredients were pressed into molds and fired. Production quickly developed in France, which became the primary producer from the 1850s onwards. Start dates of manufacture are uncertain for most types, and it is unknown when production ceased, though likely in the mid-twentieth century.

**Usage:** Porcelain buttons were produced to be strong and resistant to heat, water, and corrosion, making them useful for utilitarian and decorative functions. Shanked buttons may have been used for shoes or gaiters as well as clothing. Porcelain buttons were used as blanks for small cloth covered buttons. Prosser-molded collar studs were also made.

## More information:

National Button Society of America. 1970. *Guidelines for Collecting China Buttons*. Boyertown Publishing, Boyertown, PA.  
Sprague, Roderick. 2002. China or Prosser Button Identification and Dating. *Historical Archaeology* 36(2):111–127.



20x magnification of broken edge (top) and orange-peel-textured back.



Underwear ("pantywaist") buttons had large holes for attachment with durable fabric tape instead of thread.



Prosser-molded collar stud.  
Base typically has molded bands.



Shanked, front



Geometric molded



Sew-thru



Pin shank



Red



Embedded wire shank, back



Brown



Embossed back mark



Impressed back marks

# Rubber

1851 - 1900

Hard Rubber, Vulcanite,  
a.k.a.: Ebonite, Goodyear,  
Vulcanized Rubber



•

wire shank

Domed button with  
wire eye, face and  
back

•

self-shank

•

sew-thru

•

flexible rubber

**Description:** The rubber body is dense and opaque, usually with a matte or satin finish. The color is normally black but may be greenish, brown, or red. Buttons may be two- or four-holed sew-thru or whistle, or have wire shanks, pin shanks, or self shanks. Forms may be flat, concave, or domed, and a wide variety of shapes.

**Manufacturing Technique:** Molded. Self-shanks were drilled/carved; eyes were usually drilled; and wire shanks/eyes were embedded.

**Decoration:** Rubber buttons often have molded decoration, which is generally crisp.

**Diagnostics:** Buttons are almost always backmarked with an impressed or embossed company name and Goodyear patent information. Mold seams around edges were trimmed smooth or beveled, and tool marks may be present around holes. They have a rubber or sulfurous smell when heated.



Shanked rubber button with  
molded decoration identified  
as a deer.

# Rubber

1851 - 1900

Hard Rubber, Vulcanite,  
*a.k.a.*: Ebonite, Goodyear,  
Vulcanized Rubber



India Rubber Comb Company logo  
from a card of buttons.

**History:** Goodyear obtained a patent in 1851 for producing buttons and other items. The main companies to produce hard rubber buttons were:  
India Rubber Comb Co. (1854-1898)  
Novelty Rubber Co. (1855-1886)  
Dickinson Hard Rubber Co. (1875-1890s)  
American Hard Rubber Co. (1898-1966)

**Usage:** Hard rubber does not degrade or corrode in water, which made these buttons useful for applications including naval uniforms and outerwear into the twentieth century. Preservation is usually good, though they may become worn and scratched, or distorted from high heat. Vulcanized rubber was also used to make combs, pipe stems, bottle stoppers, and other household items.

**Flexible Rubber Buttons:** So called “non-breakable” or semi-hardened rubber buttons were patented in 1925 and are still produced today. They were marketed for children’s clothing, sports uniforms (e.g., rugby shirts) and other applications. The most common color is white, and they are typically undecorated. Unlike hard rubber buttons, these often distort over time and may develop cracks and staining.



Distorted/worn rubber  
button back, AHR Co.



Flexible rubber buttons.

# Two-Piece Sheet Metal

Post-1802



Cu alloy face,  
stamped, gilt



Cu alloy back,  
soldered shank



Tin face



Shank thru  
back plate



Missing shank  
thru back plate



Shank thru back  
plate, crossed wire



Shank integral to back plate



**Description:** Shanked buttons made with stamped sheet metal backs, faces, and/or rims. May be domed, flat, or concave. Metals include copper alloy, tin, iron, and steel. Face and back may be different metals; other materials often sandwiched in between. Wire shanks were inserted through the back and may be soldered in place. Shanks could also be formed from the back plate itself. Canvas shanks ("pad backs") were especially common on cloth-covered buttons.

**Manufacturing Technique:** Stamped with face or metal rim crimped over back plate.

**Decoration:** Stamped decoration very common, including cutaway designs. Painting, gilding, engraving, and the use of additional metal trim or other materials such as glass and fabric are typical. Backs or faces may have been enameled.

**Diagnostics:** This type of button is often corroded and/or rusted, depending on the metal. The wire shanks may be loose or missing. Cloth coverings, fiber or paper filling and pad backs are typically fully decayed.



Cloth-covered  
face



Pad back



Missing pad



Enamored face and back



integral shank

.

shank through  
back plate

.

soldered  
wire shank

.

pad back



Stamped tin face with copper alloy rim.

# Two-Piece Sheet Metal

Post-1802

**History:** Buttons of this type were first produced in England ca. 1802 but quickly made their way to the United States. The center of American button manufacturing was in Connecticut, where both the Waterbury and Scovill button companies were active by the first quarter of the nineteenth century. Backmarks for these companies are common, especially on uniform buttons. Buttons are still made in this method, with the integral shank the most used style.

## Selected Patents/ Dates:

**Machine crimped metal:** ca. 1802

**Flexible shank i.e., pad back:** 1825

**Integral shank:** 1869 US 88099

**Crossed-wire shank:** 1875 US 166091

**Usage:** These became the standard button for military and civilian uniforms. They were often attached with cotter pins or wire loops to be easily removable for cleaning. The type was readily conducive to elaboration, with a wide variety of decorative techniques for both men's and women's dress.



Stamped and painted, i.e., "tinted"



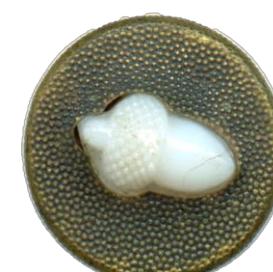
Stamped, painted, engraved



Stamped and gilded



Stamped, sandwiched fabric



Inlaid glass



Inlaid glass with metal rim



Inlaid "crystallized" tin



Enamored



Inset cloth, metal rim



Cloth-covered, added glass

# Wood

18<sup>th</sup> century to present



Carved face



Natural wood grain



Self-shank, back  
and side

Wire shank



Imitation leather

Imitation  
bamboo



Dyed and  
laminated

Enamel  
coated

Painted



Button blank and  
covered buttons



Wire-eyed button blank  
and covered button



Applied resin



Metal trim



Sew-thru

shanked

blank

**Description:** Opaque and lightweight buttons with natural wood grain. May be dyed, stained, or painted. Sew-thru, self-shanks and wire shank styles are all common. Use of wood for button blanks covered with textiles, metal, or other materials has continued since the eighteenth century.

**Manufacturing Technique:** Cut or carved from wood. Holes were drilled.

**Decoration:** Carved, stamped, painted and applied materials are all frequent decorations. Wood was often used to imitate fabric, leather, and other media. Stains, varnishes, waxes, or oils may enhance the natural surface and offer some protection.

**Diagnostics:** Wood has a characteristic grain pattern that typically remains visible on all but the fully painted/enameled examples. Preservation is often poor, with wood becoming spongy, split, and decayed by water and microbial or animal activity.



Compressed wood pulp button with molded scene and brown enamel.

# Wood

18<sup>th</sup> century to present

**History:** Wooden buttons have been made for centuries, but the process became industrialized over the eighteenth century. During the eighteenth and nineteenth centuries, the primary use for wood in the button industry was as one-eyed blanks for fabric or textile covered buttons (see Diderot). These buttons were extremely popular but unlikely to be recovered archaeologically. By the turn of the twentieth century, wood buttons, boldly carved, dyed, and painted, became common and have continued to the present day. During the 1920s and 1930s, compressed wood pulp buttons were molded under the trade names Syroco and Burwood.

**Usage:** Wood is not suited for heavy laundering, so wood buttons were typically reserved for either delicate items or outerwear. Twentieth century wood buttons are often oversized and chunky.

## More information:

Diderot, Denis Jean Le Rond D'Alembert. *Boutonnier*. In *Encyclopédie, ou Dictionnaire raisonné des sciences, des arts, et des métiers*. [Paris, Briasson et to 1765, 1751].



Wood may be identifiable from characteristic color and pattern.  
Top-to-bottom: rosewood, oak burl, redwood branch.



Wood-like buttons include carved coconut shell (l) and carved fruit pit (r).

# Fiber

Pre-1940,

1840 - 1900 (greatest popularity)

*a.k.a.:* Paper,  
Cardboard



Front



Back



Molded



Molded and  
painted



Colors



black



Worn surfaces



colored



Missing surfaces



Domed shoe buttons



shoe



Fiber buttons with flat faces and long wire shanks, for upholstery and other utilitarian functions.

# Fiber

Pre-1940

1840 - 1900 (greatest popularity)

Paper,  
a.k.a.: Cardboard

**History:** Patents from the 1840s confirm that buttons made of paper were already being produced, though their popularity peaked around the turn of the twentieth century. As a cheaper alternative, fiber buttons were always an economical rather than aesthetic choice. The molded decoration is often identical to those found on contemporary buttons made of other materials, including metal, rubber, and vegetable ivory. By the 1920s, more durable modern plastics overtook fiber buttons.

## Selected Patents/Dates:

Improvement in fiber buttons: 1843: US 3281

Buttons from strawboard: 1849 US 6654

Finishing fiber shoe buttons: 1876 US 183866

Shanks for fiber shoe buttons: 1893 US 489864

## Usage:

The primary function for fiber buttons was on utilitarian menswear items, such as suspender and fly buttons on pants. Collar studs with metal pins and fiber bases were also produced.



From top left: Woven leather button, imitated in vegetable ivory, wood, and fiber.



Rubber (l) and fiber (r) anchor buttons.



Two-piece metal (l) and fiber (r) suspender buttons.



Carved shell (l) and fiber (r) buttons.



Fiber collar stud.

# Metal Workwear and Uniform

post-1845



One-piece steel



One-piece aluminum



Two-piece, metal back



Two-piece, metal back, enameled



Two-piece, missing back



Two-piece, cardboard back and wood back



Two-piece, bar shank



One-piece, segmented



one-piece  
steel

one-piece  
aluminum

two-piece  
metal back

two-piece  
fiber back

bar shank

segmented



Two-piece button, Boy Scouts of America.

# Metal Workwear and Uniform

post-1845

**History:** Prior to the mid-nineteenth century, sew-thru buttons were rarely made of metal. With the advent of modern machinery for stamping and crimping, they could be manufactured quickly and cheaply. Dozens of utilitarian button forms were patented between 1845 and 1945. Copper alloy, tin, and iron buttons were more common in the nineteenth century, replaced by aluminum and steel in the twentieth century.

## Selected Patents/Dates:

**Two-piece:** 1845, US 3915

**Whistle-style two-piece:** 1854

**Bar shank:** 1873 US 138525

**One-piece aluminum:** 1924, US 1518717

**One-piece fish-eye:** 1930, US 1786840

**Segmented shank:** 1945, US 2383238

Note there are over 20 patents for bar-shank buttons between 1875 and 1900.

**Usage:** This type of button was almost always utilitarian, made for non-visible fastenings or sturdy functional clothing. Many were used on men's shirts and pants, identified in the literature as "pantaloons buttons" or "suspender buttons."



Whistle-style two-piece, marked "Registered Feb 13, 1854."



Bar shank style two-piece, marked "Patented Feb. 7, 1888."



One-piece aluminum, marked "P.B. Co. Patented Dec. 9, 1924."



One-piece fish-eye (TPQ 1930) and one-piece segmented (TPQ 1945). Both are usually steel.

# Horn

Pre-1950, 1850 - 1900 (greatest popularity)



Natural color



Dyed



Embedded wire shank



Self-shank



Whistle



Natural face



Pick mark



Edge use-wear



Visible fibers



Discoloration

**Description:** Horn buttons are hard but lightweight, translucent under strong light. Color ranges from natural tan and brown to dyed black; other dyed colors are also possible. Flat sew-thru buttons are common, but ornately molded self-shank or embedded wire shanked buttons were also produced.

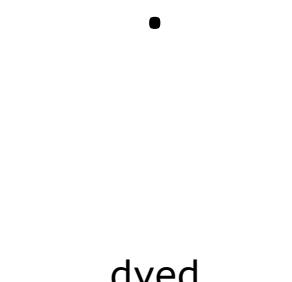
**Manufacturing Technique:** Cut, carved, or molded from compressed bovine horns and hooves. Holes were drilled.

**Decoration:** Highly detailed molded decoration is common and backmarks are often present. Inlays may be metal or shell.

**Diagnostics:** Horn in good condition has a plastic-like feel but the body has visible linear fiber/laminations. A small prick or "pick mark" is often present on the back, and edges have tooling or mold seams. Preservation is generally poor, animal keratin being highly subject to insect damage and decay. Horn may also appear worn, discolored, or delaminated from water and heat.



natural



dyed



shanked



Insect damage



Metal and shell inlay



Horn uniform button with molded face.

# Horn

Pre-1950, 1850 - 1900 (greatest popularity)

**History:** Large-scale manufacturing of horn buttons developed during the nineteenth century. French, English, and American companies were prominent. Horns and hooves were boiled or steamed, flattened, and pressed to create a dense, durable material. Ground horn was also used. From the 1860s to 1890s, over a dozen patents related to processing horns and hooves, forming, decorating, and trimming horn buttons were filed in the United States alone. Note that composition buttons may also contain powdered horn, among other materials.

**Usage:** Horn buttons were used for both utilitarian and decorative functions, the latter mimicking tortoiseshell, glass, jet, and other more expensive materials. Twentieth century usage was relegated primarily to functional sporting attire and outerwear. Modern plastic often imitates the coloration of natural horn.

## Look-alikes:

Horn and sea turtle shell are both composed of keratin. Tortoiseshell buttons tend to be thinner, a translucent warm honey color without visible fibers, and highly ornate.



Early 20<sup>th</sup> c. horn button card illustrating the contemporary fashion.



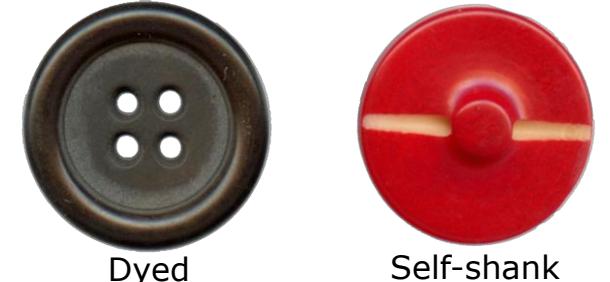
20x magnification of horn showing fibrous structure.



Tortoiseshell buttons with mollusk shell and metal inlay.



Natural color      Underwear      Dyed



Self-shank



Pin shank



4-way shank



whistle



Backmark



Stamped military button



Shoe button,  
wire shank

# Vegetable Ivory

1860 - 1950

a.k.a.: Tagua Nut, Corozo,  
Ivory



**Description:** Lightweight wood- or bone-like buttons carved from a nut in a wide variety of styles. Natural color is ivory, but is often dyed, with black and brown the most common. Sew-thru, self-shank, pin shank, and wire eye types were all produced.

**Manufacturing Technique:** Cut or carved from the tagua nut. Holes were drilled.

**Decoration:** Button could be stamped to produce embossed designs in fine relief. Lathes were used to carve intricate decoration, often in tandem with dye to create multi-colored patterns. Designs were printed on some faces, or other materials such as metal applied by riveting.

**Diagnostics:** The tagua nut has a grain that resembles tusk ivory, but under magnification the surface is packed with round pore-like structures. While fairly durable, with heat and moisture cracks develop and the texture becomes blocky. Vulnerable to pests. Dye typically does not penetrate through the body; natural color may be visible in drilled shanks.

natural      dyed

.

self-shank      whistle

.

stamped      carved



Button of vegetable ivory cup with fabric covered face and pad shank.

# Vegetable Ivory

1860 - 1950 a.k.a.: Tagua Nut, Corozo, Ivory

**History:** The tagua nut is the seed of a South American palm tree (*Phytelephas spp.*). It was brought to Europe in the mid-nineteenth century where its color and hardness made it a good substitute for elephant ivory. An economical choice, vegetable ivory became very popular during the 1870s and 1880s, with most decorative techniques developing during this period. In the United States, dozens of patents were issued for vegetable ivory button carving and decorating, from the 1860s well into the twentieth century.

## Selected Patents and Dates:

**Cut/carved decoration:** 1867 US 71429

**Lathe cut and dyed:** 1875 US 165448

**Pad back:** 1880 US 232190, US

**Metal trim:** 1883 US 283223

**Usage:** Vegetable ivory was used for both utilitarian and decorative buttons. Sew-thru workwear buttons for pants and shirts may have store or company names on the face. While still produced today, vegetable ivory has become rare. Small carvings, especially sewing implements, were also made of tagua nut.



20x magnification of vegetable ivory showing pores and ivory-like striations.

# Composition

1840 - 1940



Sew-thru front      Sew-thru backs



Self-shanks      Exposed metal shank



Molded decoration



Colored decoration and inlay



Inlaid metal      Discolored



Eroded      Deformed      Chipped



sew-thru

.

shanked

.

whistle

**Description:** Dense and opaque, typically in black, brown, or other dull colors. Occasionally translucent. The recipe for composition was highly variable but consisted of a plastic material such as shellac mixed with a filler, often sawdust. Sew-thru and self-shanked or embedded wire shank buttons were produced.

**Manufacturing Technique:** Molded. Eyes may be drilled or molded, with a characteristic stepped opening.

**Decoration:** Decoration is common and includes molding, embedded materials such as shell or tinsel, multi-colored striping and speckling of the matrix.

**Diagnostics:** In good condition, composition has a smooth and plastic-like texture. As it wears, it becomes duller and porous or friable. Chips have a fine grainy appearance. Composition melts or deforms with heat or ironing. Mold seams are typically present along edges. Self-shanked buttons have fully encased metal shanks that may become exposed with wear. Under magnification, shiny mineral grains or sawdust particles are visible. Color extends through the body.



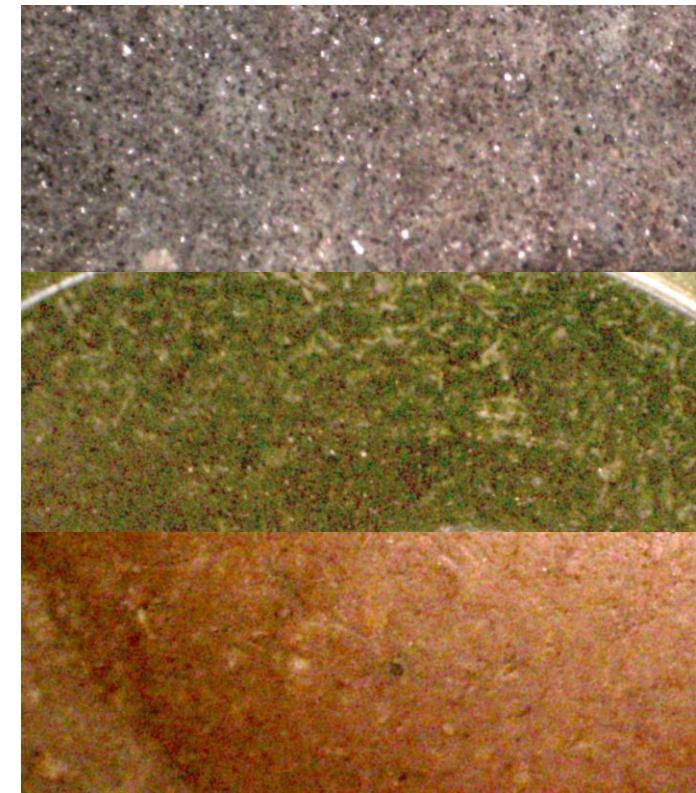
Undecorated uniform buttons with embedded metal loop shanks, made to be removed for laundering.

# Composition

1840 - 1940

**History:** Composition is one of the first synthetics. Recipes varied, including materials such as animal blood (trade names Bois Durci ca.1856 in France and Hemacite ca. 1878 in US) powdered horn, resin, and shellac mixed with sawdust, powdered slate, mica, or other fillers. Heat and pressure was applied to create a hard and stable material. By 1880 there were numerous patents for various composition recipes or processes, most of which cannot be distinguished visually. Composition was replaced by more stable modern plastics by the mid-twentieth century.

**Usage:** Composition was used to produce a variety of utilitarian and decorative buttons for men and women. As a precursor to modern plastic, it served many additional purposes, including furniture hardware and doorknobs, toys—especially dolls—and picture frames or cases.

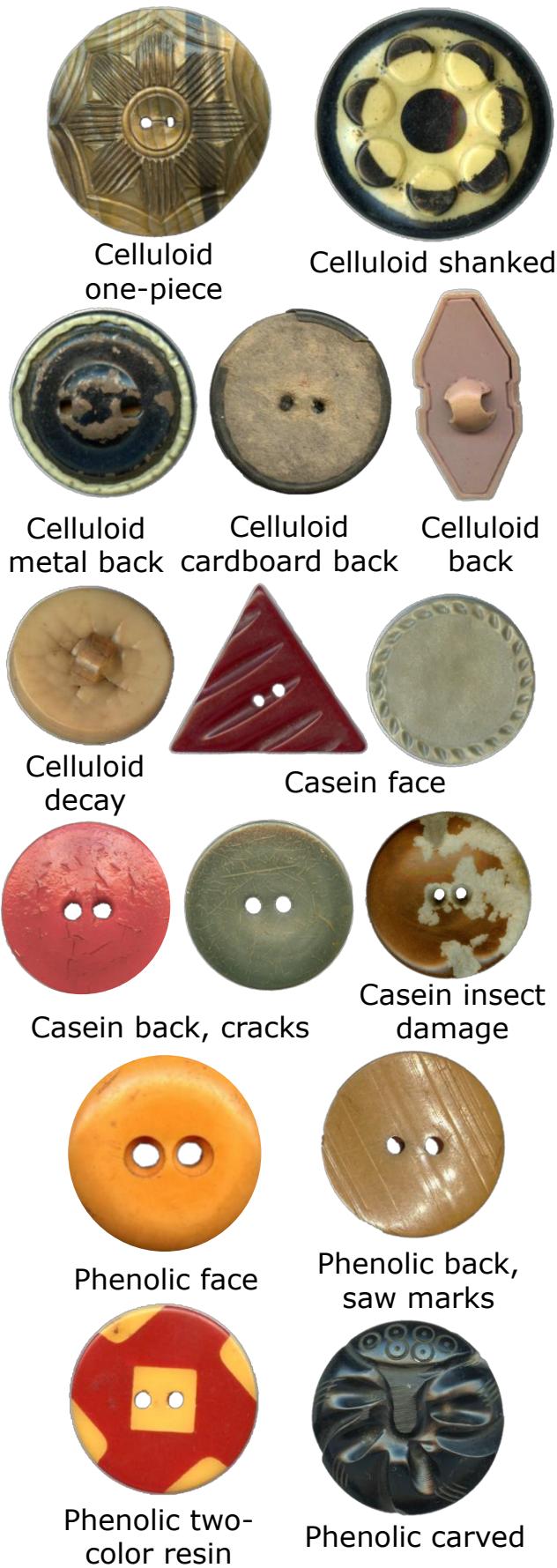


20x magnified images of composition bodies: eroded with mica flecks (top), sawdust (middle and bottom).



Front and back of post-1940 plastic buttons of sawdust and resin. Note the modern ejection mold mark between eyes on back.

# Early Plastics



## Cellulose nitrate (1869-1940), a.k.a. Celluloid:

Extremely lightweight buttons. All colors are possible. Translucent to opaque. Sew-thru, self-, or added shanks common, as are two-piece buttons with celluloid "bubble" over sheet metal back. Typically stamped or molded. Decoration includes dye, painting, stamping, carving, and applied materials. Celluloid is unstable, developing blocky cracks and discoloration, eventually crumbling. Highly flammable with a camphor scent.



## Casein (1899-1940), a.k.a. Galalith, Erinoid:

Lightweight plastic made from milk proteins and formaldehyde. Usually opaque. Utilitarian sew-thru buttons are most common, either body dyed or surface dyed over white ground. Decoration includes carving and molding. Smells like wet dog when damp. Develops surface cracks and highly subject to pest damage. Unlikely to be recovered archaeologically.

celluloid

## Phenolic resin (1911-1950), a.k.a. Bakelite, Catalin:

Dense plastic made from carbolic acid and formaldehyde. Can be translucent or opaque; ivory (now yellow) and black are the most common colors. Sew-thru and shanked styles were produced. Buttons were carved and trimmed with a lathe, usually from round or cylindrical blanks, or could be molded. Backs are typically flat; may have saw marks. Warming will produce a formaldehyde scent. Preservation good.

casein

phenolic resin

**NOTE! Celluloid off-gases compounds that speed its decay. To extend the life of your celluloid artifacts, make sure they can breathe!**

# Early Plastics

**History of Celluloid:** Celluloid was invented in 1869 and by the 1890s was a common and inexpensive button type. Celluloid was best suited for lightweight decorative applications. Many early twentieth century examples are oversized and/or in novelty designs. The fragility and instability of celluloid led to its disuse by the 1940s.

**History of Casein:** First developed in Germany, casein plastic was patented in 1899. By the 1920s it was extensively used for inexpensive buttons, capitalizing on its relative durability and colorful appearance. Casein buttons were slowly replaced by more durable plastics though some production continues.

**History of Phenolic Resin:** Bakelite was invented in 1907 and soon after employed for buttons. This early phenolic resin included sawdust or asbestos as a filler and was opaque, typically black. Catalin, a translucent version, was patented in 1927. Phenolic resins were widely used for jewelry, household goods, gaming pieces, and electrical parts.

## More Information:

Plastics Historical Society: [www.plastiquarian.com](http://www.plastiquarian.com)



Multi-part molded celluloid fruit basket button.



Carved Bakelite clothespin button.



Later 20th century plastics come in a wide variety of materials, including vinyl, nylon, urea, melamine, polyester, and acrylic. These types are usually fully formed and decorated via molding, and most will have visible mold seams and modern (post-1930s) ejection pin marks on back.