The oldest style of printing known as relief printing began in the 15th century. This style of printing is still used today.

In 1798, a Bavarian man Aloys Senefelder, an actor and playwright by profession, developed a new printing technology known as Lithography.

Lithography is a method for printing on a smooth surface. It is used to print text or artwork onto paper or other porous materials.

There was an abundance of fine-grain limestone in Bavaria where Senefelder lived. He experimented with this stone and found once
smoothed, it served well as a printing plate. His printing interest stemmed from his desire to find a cheaper method of printing music.

The origin of lithography truly began with a laundry list. The story goes that one day while Senefelder was busy attempting another experiment for cheaper printing, he was asked by his mother to write down her laundry list. Senefelder, not having nearby a pen or pencil, selected a hardened piece of homemade ink and wrote her list on a handy block of limestone. Apparently his curiosity intrigued him, “would the limestone make a print?” He applied nitric acid on the surface and, as it reacts with metal, the acid ate away the unwaxed areas on the limestone, thus leaving his mother’s laundry list in slight relief.

While washing off the acid he noticed the water ran off the greasy letters as it did not mix with water. On top of his greasy letters he applied oil-based ink, place his stone into a printing press, laying a sheet of paper over it, pressed the image and created the first known lithograph.

Lithography comes from the Greek language, “lithos - stone, graphein- to write.”

Unlike embossed or intaglio techniques, lithograph printing is planographic- flat smooth surface. Lithography depends on the chemical repellence of oil and water.

The stone must be prepared for printing by smoothing its surface. The smoothing of the limestone surface requires grinding by a levegator and various acids and grades of grit. Designs may be drawn on the smooth stone plate with greased-based pen, pencil, or chalk (often referred to as tusche a greasy crayon.) The non-tusche areas are absorbed with water. A roller of oily ink is applied to the design, adhering only to the tusche areas. The ink is repelled by the water areas. The print is then made by pressing paper against the inked drawing.

Early colored lithographs used one or two colors to tint the entire plate, like a watercolor tone image. The most common prints were of landscape or topographical illustrations. Artists continued to rely on hand coloring the lithograph for color images.

Chromolithography uses separate stones (plates) for each application of color. Different parts of the design were waxed and inked different colors on separate stones. The print would be pressed on each separate stone.
The challenge of course, was to keep the image aligned.

The development of the curved zinc roller by the early 19th century allowed mass production of lithography and was the pivot point of modern lithography.

Today, some printers still use the stone printing methods. With developments in machine, camera, and computer technology, modern day lithography uses plates made from metals, plastic, wood and even images from digitally-created computerized plates.

Fine lithographs and offset lithography reproductions are different. Offset lithographs are simply copies. To see the difference between an original hand drawn lithograph and an offset lithograph, use a magnifying glass to view the prints. An offset lithograph image will show several dots while an original lithograph shows nearly solid color.

If the lithograph dots line up neatly, it is an image created by camera or other commercial technology. If the dots are random, it is more likely a hand drawn lithograph.

Well printed lithographs should have a wide tonal range and a delicate grainy appearance much like a pencil or ink drawing. Poorly printed lithographs will look coarse, grainy and dirty.

Lithograph buttons were printed on celluloid, porcelain and paper. The first lithograph buttons appeared by the mid 1840s. They were printed on paper, featured male and female classical-style heads, black and white, and often mounted in painted metal rims and had thread backs. The paper was only protected with an application of varnish. Such buttons are extremely fragile and scarce.

By 1870, lithograph buttons were protected with glass and celluloid shields. Glass shields maybe older than celluloid shields, however, it may be they were simply more expensive than and not as common as the celluloid shields. Most celluloid shields have yellowed with age thus giving the appearance of yellowed or faded images of the lithograph; the lithograph itself is probably still in its original state of color.

Foxed is the term for the discoloration in celluloid. The discoloration begins with small spots and can continue to spread. It is can be found on the celluloid fronts of lithograph buttons and sometimes may also discolor the lithograph itself.

The most common lithograph buttons are of Victorian men and women heads. Less common are images of animals, buildings, children, flowers and scenes.

Prices vary according to condition, image, other embellishments or settings and size.

The 2009/10 NBS Classification System classifies lithograph buttons as
a technique not a material. They are found under Section 23 – Specific Types, Class 6.4: Lithograph. Not a material, but a technique using absorption and repulsion to create an image inked on a smooth surface. Multiple colors require individual ink application. Lithos may appear slightly grainy, with dot patterns to create shading. The technique is used on paper, porcelain, and occasionally, celluloid. They were often covered with a glass or celluloid shield.

**Button Illustrations**: several buttons in this article are from R.C.Larner.

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¹ The Big Book of Buttons, page 175.