



Keys To The Identification Of Ivory

Exotic Materials Play a Major Role in the Decorative Arts and it is Important to Understand their Morphology

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From precious gems and metals to tortoiseshell and ivory, exotic natural materials have earned an esteemed place in the decorative arts. The ability to distinguish between the actual material and the imitation is important to the collector. As antiquaries we have had many experiences vetting antique pieces crafted with both fake and authentic elephant ivory. In this article we would like to share what we look for and why.

Understanding the morphology of a material provides the working clues to identification. Ivory originates from the tusks of elephant, mammoth, walrus and other such mammals. Tusks are massive upper incisors, similar in structure to human teeth, with nourishing blood vessels occurring only in the root. Dentine is deposited layer upon layer as

the tusk grows, creating a very characteristic internal "growth pattern", similar to the growth rings of a tree. When elephant ivory is carved, these growth patterns are exposed, appearing as intersecting lines or crosshatching. These intersecting patterns are called Schreger lines and can be detected with a 10x Loop especially on curved surfaces of carved objects.

Harder and more durable than wood or bone, the creamy color, close-grained texture and pleasing smoothness of ivory makes a perfect material for detailed carving. The natural overall curve of the tusk is visible in larger objects. Ivory is semi-translucent, tends to yellow with age and will split along the growth pattern, the cracks often blackening over time. These other



Opposite: Ivory sphere demonstrating cracks along growth lines, blackened over time. Left: 19th Century carving of a Roman general, the subtle Schreger lines found on the top appear as cross-hatching. This statue is also a wonderful example of the exceptional detail, tight grain, and creamy texture of real ivory. Below: 19th Century ivory riding crop, the Schreger lines found under the handle, appearing as subtle lines. Bottom: 19th Century inlaid center table, the large slab of elephant ivory cracked and blackened with age. Any Schreger marks are obscured by the ink-rubbed etching.



keys to identifying ivory are especially important when trying to identify flat surfaces such as ivory veneers or inlays where Schreger lines are masked by the fine etched and ink rubbed surface. The quality of the carving, artwork and general craftsmanship is also an indicator of elephant ivory.

The most predominant ivory imitator is polished bone. More opaque and much whiter than ivory, unless dyed yellow, bone doesn't tend to split with age. Carved bone cannot achieve the same amount of fine detail of ivory because it lacks a fine tight grain.

Unlike ivory, bone is a living tissue, highly nourished by blood vessels that leave telltale channels in the surface and on cross-section, the former vessels will appear as dark spots, pits, or dashes. Bone is often bleached and polished to mask the appearance of these blood vessel channels, but they are always present and dirt tends to collect in these imperfections, darkening with age. If these organic markings are present under a 10x loop, you can surely rule out ivory.

In the mid nineteenth Century synthetic plastics were invented and were quickly used to emulate precious substances, including ivory. In general, the surfaces of modern plastics and resins leave evidence of molding such as seams, rounded raised portions, jagged edges, pits and broken bubbles easily identifiable under the loop. □

For more information on Ivory, please visit the Antique Library at www.urbanchateau.com

