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## The Authentication Process

The following is a description of the *Authentication Process* that documents the minimum standards that must be considered when evaluating objects. However, it is clearly recognized that constraints exist when evaluating any object. The availability of information, expertise, and analytical methods/equipment as well as financial and time constraints invariably dictate how far any process can be taken. With that being stated, a “best practices” approach with minimum applicable standards must be the starting point of any evaluation. Constraints must be clearly identified and disclosed as early in the process as possible to appropriately manage and set expectations. Upon completion of the evaluation process, these constraints must again be clearly disclosed and ultimately govern the veracity and reliability of the final determination.

### ***Process Overview***

The process of authentication involves many distinct steps that are intimately linked and completely interdependent. The initial steps evaluate the provenance of an object, the paperwork that documents it, and any prior conservation or analysis efforts. Other steps evaluate the object itself on the basis of artistic qualities, stylistic norms, variations, techniques, and materials. Further steps include comparatives research and the identification of applicable analysis techniques. *Authoritative Sources* must be identified and consulted. Research into the potential for and frequency of forgeries within the relevant areas must also be completed. All of this information is then analyzed to guide the scientific analysis process, which further supports or casts doubt on authenticity. It should be noted that scientific testing alone can rarely establish if an object is authentic/inauthentic definitively (although it is often useful in detecting fakes, alterations, and damage). Similarly, no single step in the *Authentication Process* is generally conclusive.

### ***Provenance Research***

The first and most important step in evaluating the authenticity of an object is a rigorous evaluation of its provenance and documentation. Although this process is often difficult, it is essential to establish the complete history of the object in order to support the authentication and dating processes. This information should include the exact date, location, and circumstances of the object’s collection, and the identity of the collector supplemented by a complete history of the object through the chain of ownership. Provenance that cannot be reasonably verified or is completely absent may cast serious doubt on an object’s authenticity and will push the onus of verification onto other aspects of the process that ultimately may not be able to determine the authenticity. It should be clearly noted that there are instances where objects are both scientifically consistent and stylistically correct but are fakes. In some circumstances it all comes down to provenance.

### ***Conservation History***

A formal Condition Report prepared by a qualified Conservator is a standard requirement and typically serves as the starting point of any evaluation. If an object has been conserved, restored, or previously the subject of analysis, it is critical that this work is thoroughly documented and that the documentation accompanies the object through the chain of ownership. For example, some conservation treatments and analysis techniques (e.g., computed tomography, radiography, etc.) may alter the effectiveness or completely limit the ability to perform certain authentication and dating procedures. In addition, some materials that are routinely used during the course of conservation or cleaning may falsely (or sometimes correctly) be interpreted as signs of fakery or alteration.

## ***Authoritative Sources***

The identification of *Authoritative Sources* is a critical step in the *Authentication Process*. *Authoritative Sources* are represented by three categories:

***Recognized experts*** - Experts at analyzing the object in question must be identified and consulted. The qualifications of these individuals must be carefully reviewed and should be able to withstand reasonable scrutiny; multiple experts in each area should be consulted.

***Reference materials*** - Reference materials that support the analysis process need to be identified and reviewed. Peer-reviewed scientific journals and scholarly textbooks are typically excellent resources. Publications that illustrate unprovenanced objects or objects that have not been appropriately studied must be avoided. Web references that can not be definitively tied back to *Authoritative Sources* must also be avoided. Typically a diligent review of scholarly literature and its accompanying references or bibliographies will identify the appropriate resources.

***Reference collections*** - Reference collections provide the basis for comparative studies and should be identified. These collections must contain well-documented and authentic objects with a solid provenance. Collections that also include inauthentic or altered objects with well-documented records on how they were identified/detected may also be helpful.

## ***Preliminary Research***

Preliminary research begins by utilizing the full complement of *Authoritative Sources* including experts in the field (art, archaeology, science, etc.) who have a solid background in analyzing the specific type and style of the object in question. This collective knowledge and research will define which analysis techniques should be employed and will become the basis for the evaluation and interpretation of results.

## ***Scientific Research***

***Applicable analysis techniques*** - Every object presents its own unique set of requirements for analysis. *Authoritative Sources* must be consulted to guide in the selection of appropriate analytical techniques. Wherever possible, multiple techniques should be utilized to confirm results and conclusions. Testing techniques that might impact or limit future analyses need to be carefully considered before use. One potential issue may be the lack of consent for analysis methods that affect the object; e.g., taking required samples, CT scanning, radiographs, etc. In instances where the owner will not allow the object to be thoroughly tested and where this type of testing is the only means to help authenticate the object, no determination can or should ever be made.

***Scientific analysis*** - Analyses should be performed by qualified individuals observing all of the protocols and quality standards appropriate to the techniques employed. The report for each test performed should not only document the findings and conclusions (with appropriate descriptions) but should also document the equipment and methods employed to produce the results. The limitations of the method, including any exposure to fakery, must be fully explained.

Critical to this process is the ability to differentiate natural vs. artificially induced effects. If an attribute is found to be consistent with authenticity but cannot be differentiated from effects that can be artificially (or otherwise) created, it cannot be given the same weight and must be considered inconclusive. However, the issue of differentiation must not discourage appropriate analysis, as most testing is geared toward the identification of attributes that are known to be inconsistent with authentic examples. Rigorous testing should always attempt to eliminate as many inconsistent attributes as possible thereby increasing the confidence (but not proving) that the object is authentic. Again, *Authoritative Sources* must be consulted to guide in the selection of the appropriate and applicable analytical techniques.

In addition, the precision and detection limits of the techniques and equipment must be fully disclosed. The standard that should be applied to the testing report is that it must contain sufficient detail to facilitate auditing by a qualified third party who could verify the methodology, technique, results, and interpretation. Reports that do not establish applicability (of the testing technique) or fail to relate results to established standards should be considered invalid. Reports that offer data or conclusions with no explanation of how they were derived must also be considered invalid. The final step in the scientific analysis process is to work with *Authoritative Sources* to interpret the results of the analysis/testing correctly and accurately compare them with definitive sources and/or statistically relevant expected norms.

#### ***Final Determination***

The final step in the *Authentication Process* is to make a determination. The determination must be made by a qualified individual capable of interpreting and weighing all of the available evidence as produced by the various authentication steps. An important aspect is to determine whether enough data exists to support a determination. ***A determination of “authentic” should never be made on the basis of a lack of evidence to the contrary. The evidence needs to support authenticity.*** In instances where results can be considered ambiguous or inconclusive, they should be stated as such, with no finding of “authentic.”