



american
institute for
conservation

**Preserving Cultural
Heritage**

Essential Competencies For Conservation, Preservation, And Scientific Analysis

May 11, 2021

Section 1 Purpose and Scope

Section 2 Definitions

Section 3 Essential Competencies: Foundation

Section 4 Essential Competencies: Practice

Section 1: Purpose and Scope

Proposed changes to the application process for Professional Member (formerly Professional Associate) designation include evaluations specific to one of three categories: Conservation, Preservation, or Scientific Analysis. For the purpose of this document, “competencies” is used to describe the knowledge, skills, and abilities that constitute the expertise required of each category.

As the fields of conservation, preservation, and the scientific analysis of cultural heritage become more interdisciplinary, it's important for us as professionals under the umbrella of AIC to acknowledge and embrace this reality. The approach being taken by the Membership Designation Work Group (MDWG) strives to unite related, yet distinct, disciplines focused on cultural heritage stewardship with the goal of strengthening the profession by creating a framework that has meaning both inside and outside the organization.

The 2020 Essential Competencies provide an outline of the basic competencies that define a conservation professional, preservation professional, and one who carries out scientific analysis, with the dual goals of advancing the professions and making our work more comprehensible to external professional groups and the general public. The Qualifications Task Force and the Collections Care Task

Force authored the original texts [Defining the Conservator: Essential Competencies](#), and [Requisite Competencies for Conservation Technicians and Collection Care Specialists](#) which were approved by the AIC Board in 2003 and 2005, respectively. As the field of conservation has continually evolved and changed, so has the membership profile of AIC. The 2003 twelve essential competencies in “Defining the Conservator: Essential Competencies” was utilized to frame this document to be more inclusive of AIC diverse membership profile. The Essential Competencies Conservation Subgroup consulted with the eight members of the Qualifications Task Force who authored the 2003 document in preparation of the revised Essential Competencies.

This single document, prepared 2019 – 2021, is a combination and revision of the two previous documents, with language adjusted throughout so that the competencies encompass the vast roles within the field of conservation and the AIC membership. The two major changes made in this document include adding Legal and Ethical Issues as a separate competency, and combining Scientific Principles and Examination.

Twelve unifying core competencies identified for AIC Professional Members are outlined in the Essential Competencies diagram below; nine foundation competencies and three practice competencies. While the foundation competencies are more broadly shared among all members, given the diversity of practitioners across the 3000+ members of AIC, there is a wider variety of approaches in the practice competencies. Concepts, definitions, and topics specific to the three Professional Member application designations are provided in separate columns within the practice essential competencies. The professional profiles of AIC members vary greatly, yet one’s primary role typically lies within one of the three areas of practice. This document was written by the Membership Designation Working Group (MDWG) Essential Competencies Sub-groups led by Jessica Walthew (Conservation), Laura Hartz Stanton (Preservation), and Catherine Matsen (Scientific Analysis).

One should recognize the distinction between the purpose and scope of the Essential Competencies as differentiated from the Code of Ethics and Guidelines for Practice. The Essential Competencies outline the necessary areas of knowledge, skills and abilities that exemplify a conservation professional, preservation professional, or scientific analysis professional. The Code of Ethics and Guidelines for Practice sets forth the principles that guide such professionals in the care of cultural property. A competency is the ability to do something successfully; code of ethics are a set of standards of conduct that members of a group are expected to uphold, and the principles within the code of ethics are values used to guide behavior. This Essential Competencies document serves to (1) communicate to external professional groups and the general public the knowledge, skills and abilities of professionals involved in the field of cultural heritage stewardship; and (2) to outline competencies from which to evaluate AIC members who apply for Professional Membership designation. The AIC Code of Ethics and Guidelines for Practice is to be used as a guide for all AIC members in the ethical practice of cultural heritage stewardship.

Essential Competencies Sub-group Members

Conservation

Jessica Walthew, Conservator, Cooper Hewitt, Smithsonian Design Museum
Luca Ackerman, Owner, J. Luca Ackerman Photograph Conservation
Sarah Casto, Assistant Conservator, George Eastman Museum
Anya Dani, Objects Conservator, Okinawa Institute of Science and Technology
Kate Lewis, Chief Conservator, Museum of Modern Art
Eve Mayberger, Assistant Conservator, Museum of Fine Arts, Boston
Nina Owczarek, Objects Conservator and Assistant Professor, University of Delaware
Laura Panadero, Photograph Conservator, National Gallery of Art
Nancie Ravenel, Objects Conservator, Shelburne Museum
Kerith Koss Schrager, Founder and Principal Conservator, The Found Object Art Conservation
Nina Roth-Wells, Conservator, Nina A. Roth-Wells LLC

Preservation

Laura Hartz Stanton, Executive Director, Conservation Center for Art and Historic Artifacts
John Robinette, Registrar, Collections Manager and Advisor, JT Robinette Art and Artifacts Collection Management
Becky Kaczowski, Preventive Conservator, Smithsonian Museum Conservation Institute
Eliza Gilligan, Principal, Lenz & Lenz Antiquarian Books
Samantha Snell, Collections Management Specialist, Smithsonian Institution, National Collections Program

Scientific Analysis

Catherine Matsen, Scientist, Winterthur Museum, Garden & Library
Jocelyn Alcantara-Garcia, Conservation Scientist and Associate Professor, University of Delaware
Charlotte Seifen Ameringer, Paintings Conservator, Museum of Fine Arts, Boston
Vincent Beltran, Assistant Scientist, J. Paul Getty Trust
Susan Buck, Conservator and Paint Analyst, Susan L. Buck, Ph.D.
Molly McGath, Associate Research Scientist, Mariners' Museum and Park
Renee Stein, Conservator and Lecturer, Michael C. Carlos Museum of Emory University
Kristin Wustholz, Associate Professor, Department of Chemistry, College of William & Mary

Section 2: Definitions

Professional **conservators, preservation professionals**, and those who carry out **scientific analysis** work as collaborative partners in the larger interdisciplinary field of cultural heritage stewardship. Stakeholders in the field of cultural heritage can include allied heritage/museum professionals, private owners, institutional caretakers, communities, and others.

The definitions provided below, based on [AIC Conservation Terminology](#), are included to help AIC members seeking professional designation determine which application category best suits their individual skill set, and to provide a basis for the context of these words within this document. The professional member categories are equal, not hierarchical, and may be independent of job title and training path. It is understood and implied throughout this document that conservators are also tasked with preventive care.

Conservation: Conservators are responsible for the examination, documentation, analysis, treatment, and preventive care of cultural heritage. Conservators may also perform restoration, which is defined as treatment intended to return cultural property to a known or assumed state, often through the addition of non-original material.

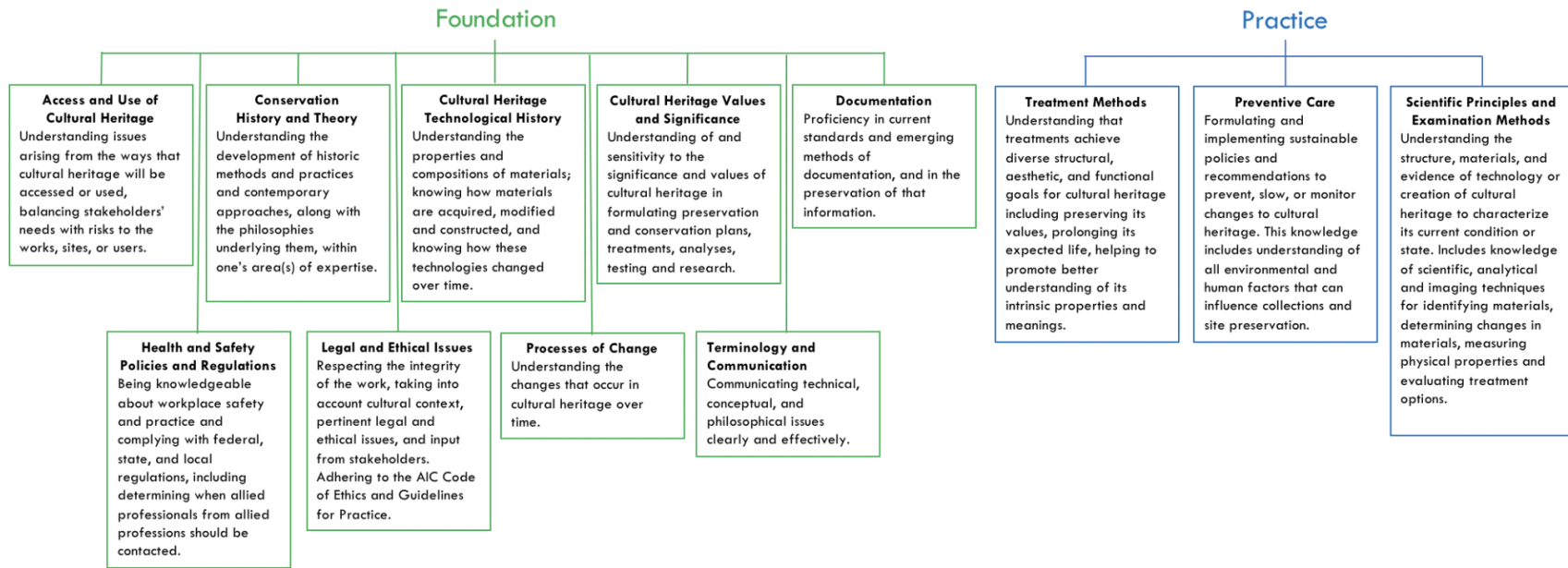
Preservation: The duties of **preservation professionals** center around the long-term care of cultural heritage materials. These professionals focus on collections management and planning, records management, and preventive care of collections.

Scientific Analysis: The professionals in this category apply scientific methods of analysis to inform the preservation, treatment, understanding, and interpretation of cultural heritage. This category includes but is not limited to conservation scientists, image specialists, and other analysts.

Cultural Heritage is defined as tangible heritage (e.g., objects, collections, installations, structures, sites), and intangible heritage identified as having artistic, historic, scientific, religious, or social significance.

Collection Care: Collection care is one of the three pillars of collection management which, in addition to preservation, includes development (growth, enrichment, etc.) and use (display, research, etc.) of collections. Collection care involves conscious actions, inactions and decisions intended to mitigate damage and loss to a collection. <https://www.culturalheritage.org/membership/groups-and-networks/collection-care> (Accessed 11/4/2020)

AIC ESSENTIAL COMPETENCIES



Section 3: Essential Competencies: Foundation

FOUNDATION COMPETENCIES

COMPETENCY	CONSERVATION	PRESERVATION	SCIENTIFIC ANALYSIS
<p>Access and Use of Cultural Heritage Understanding issues arising from the ways that cultural heritage will be accessed or used, balancing stakeholders' needs with risks to the works, sites, or users.</p>	<p>AIC Professional Members facilitate access to cultural heritage by ensuring safe practices and providing recommendations for or acknowledging limitations of culturally appropriate treatment, protection, and future care. Principles of diversity, equity, access, and inclusion should be foremost when formulating recommendations.</p>		
<p>Conservation History and Theory Understanding the development of historic conservation methods and practices and contemporary approaches, along with the philosophies underlying them, within one's area(s) of expertise.</p>	<p>AIC Professional Members make decisions guided by the knowledge of how and why current practices have evolved. This knowledge provides a foundation for professionals to continue to adapt, grow, and innovate to meet emerging needs in cultural heritage preservation.</p>		
<p>Cultural Heritage Technological History Understanding the properties and compositions of materials; knowing how materials are acquired, modified, and constructed; and knowing how these technologies changed over time.</p>	<p>AIC Professional Members use knowledge of the attributes and construction of cultural heritage to determine scientific, collection care, and conservation approaches. This includes the ability to identify the intrinsic properties of the materials that constitute a work, how materials are fit together, how they function structurally, and their history.</p>		

FOUNDATION COMPETENCIES *(continued)*

COMPETENCY	CONSERVATION	PRESERVATION	SCIENTIFIC ANALYSIS
<p style="text-align: center;">Cultural Heritage Values and Significance</p> <p>Understanding of and sensitivity to the significance and values of cultural heritage in formulating preservation and conservation plans, treatments, analyses, testing, and research.</p>	<p>AIC Professional Members employ this understanding when formulating preservation and conservation plans, and in vetting and reviewing conservation treatment proposals, plans for analyses, testing, and research. Conservation and preservation activities are carried out with cultural sensitivity and an understanding that cultural context (values/ guidelines) will guide decisions.</p>		
<p style="text-align: center;">Documentation</p> <p>Proficiency in current standards and emerging methods of documentation, and in the preservation of that information.</p>	<p>AIC Professional Members create and use information documenting cultural heritage conditions, prior use, previous interventions, proposed treatment, treatment, and ongoing care. Records of examination, treatment, analysis, and collections and site care inform interpretation, use, and future care.</p>		
<p style="text-align: center;">Health and Safety Policies and Regulations</p> <p>Being knowledgeable about workplace safety and practice and complying with federal, state, and local regulations, including determining when allied professionals should be contacted.</p>	<p>AIC Professional Members use this knowledge to ensure control measures for hazardous materials, identify appropriate safety equipment and operating procedures, and employ safe practices and hazard communication to reduce health and safety risks to humans and the environment.</p>		
<p style="text-align: center;">Legal and Ethical Issues</p> <p>Respecting the integrity of cultural heritage, taking into account cultural context, pertinent legal and ethical issues, and input from stakeholders. Adhering to the AIC Code of Ethics and Guidelines for Practice.</p>	<p>AIC Professional Members follow all laws applicable to their work and use the AIC Code of Ethics and Guidelines for Practice to guide them in developing and executing preservation, scientific, and conservation projects.</p>		

FOUNDATION COMPETENCIES *(continued)*

COMPETENCY	CONSERVATION	PRESERVATION	SCIENTIFIC ANALYSIS
<p style="text-align: center;">Process of Change</p> <p>Understanding the changes that occur in cultural heritage over time.</p>	<p>AIC Professional Members recognize and understand that chemical, physical, technological, and biological processes, as well as use, deliberate change, or alteration by a hand other than that of the maker(s) can affect the conceptual and material aspects of cultural heritage. They use this knowledge to assess materials and conditions, manage the changes, determine when (or whether) to formulate actions, and select materials to preserve cultural heritage.</p>		
<p style="text-align: center;">Terminology and Communication</p> <p>Communicating technical, conceptual, and philosophical issues clearly and effectively.</p>	<p>AIC Professional Members communicate with cultural heritage stakeholders as part of collaboration, service, and advocacy. They translate cultural heritage terminology and philosophical precepts into language that allows those outside the field to understand their findings, observations, interpretations, interventions, and rationales.</p>		

Section 4: Essential Competencies: Implementation and Practice

PRACTICE COMPETENCIES

COMPETENCY	CONSERVATION	PRESERVATION	SCIENTIFIC ANALYSIS
<p>Treatment Understanding that treatments achieve diverse structural, aesthetic, and functional goals for cultural heritage including preserving its values, prolonging its expected life, helping to promote better understanding of its intrinsic properties and meanings.</p>	<p>Conservators devise and carry out interventions guided by investigation, research, experience, and consultation with stakeholders. Conservation treatment may involve physical, chemical, or technological alteration of the work, while maintaining respect for the integrity of the work or site.</p>	<p>Preservation professionals work closely with conservators and analysts to ensure treatment strategies are consistent with broader preservation and collections care goals.</p>	<p>Analysts/scientists are aware of various treatment methods used historically and currently, and understand their effects on cultural heritage. Analysts/scientists work with conservators and preservation professionals to develop treatments, understanding the long-term impacts on the treated materials.</p>
<p>Preventive Care Formulating and implementing sustainable policies and recommendations to prevent, slow, or monitor changes to cultural heritage. This knowledge includes understanding of all environmental and human factors that can influence collections and site preservation.</p>	<p>Conservators understand the approaches and methods used to prevent or mitigate the deterioration of cultural heritage. They employ risk assessment and mitigation to minimize deterioration and manage risks to cultural heritage.</p>	<p>Preservation professionals have an in-depth understanding of the approaches and methods used to prevent or mitigate the deterioration of works of cultural heritage in storage, on exhibit, in transit, or in use. They use this knowledge together with risk assessment and mitigation to develop and implement preventive care programs.</p>	<p>Analysts/scientists are familiar with techniques, equipment, and resources that can assist in managing environmental factors; and play a key role in researching, developing, and recommending methods and actions to protect cultural heritage from damaging situations.</p>

PRACTICE COMPETENCIES *(continued)*

COMPETENCY	CONSERVATION	PRESERVATION	SCIENTIFIC ANALYSIS
<p>Scientific Principles and Examination Methods Understanding the structure, materials, and evidence of technology or creation of cultural heritage to characterize its current condition or state. Includes knowledge of scientific, analytical, and imaging techniques for identifying materials, determining changes in materials, measuring physical properties, and evaluating treatment options.</p>	<p>Conservators use appropriate tools and techniques to examine works, and know how, and when, to employ analytical testing to obtain information relevant to technical investigation and preservation decisions. They understand when consultation with an analyst/scientist is necessary.</p>	<p>Preservation professionals maintain a generalized knowledge of the structure, materials, and evidence of technology or manufacture of cultural heritage to characterize its current condition or state. They maintain a working knowledge of scientific methods that influence preservation decisions and seek assistance from conservators and analysts/scientists as necessary.</p>	<p>Analysts/scientists understand scientific principles and how they apply to conservation, including how to access and use scientific literature and how to assess the validity of published research in conservation and allied fields. They employ scientific and analytical techniques for characterizing and identifying materials and/or determining changes in these materials and/or environments.</p>