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Frank G. Matero

University of Pennsylvania, FGMATERO@design.UPENN.EDU

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Abstract

Since its emergence in the twentieth century as a discreet field combining intellectual inquiry and applied knowledge, the conservation of historic and artistic works has developed into a distinct professionally defined discipline.⁽¹⁾ In both concept and practice, conservation has as its fundamental objective the protection of cultural property from loss and depletion. As such it is concerned primarily with the physical well-being of cultural and historical resources by observing and analyzing their form, production, and meanings; conducting investigations to determine the cause and effect of deterioration; and directing remedial and preventive interventions focused on maintaining the integrity and survival of the resource. This does not assume *a priori* a singular dedication to the physical fabric alone but rather to the entire resource including the associated intangible qualities thus bringing the conservation process back into the social realm of people, places and things.

Comments

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All Things Useful and Ornamental: A Praxis-based Model for Conservation Education

Frank Matero
Professor of Architecture
Graduate Program in Historic Preservation
School of Design
University of Pennsylvania

As to their STUDIES, it would be well if they could be taught every Thing that is useful, and every Thing that is ornamental: But Art is long, and their Time is short. It is therefore propos'd that they learn those Things that are likely to be most useful and most ornamental. Regard being had to the several Professions for which they are intended.

Benjamin Franklin, *Proposals Relating to the Education of Youth in Pensilvania* (1749)

Since its emergence in the twentieth century as a discreet field combining intellectual inquiry and applied knowledge, the conservation of historic and artistic works has developed into a distinct professionally defined discipline.(1) In both concept and practice, conservation has as its fundamental objective the protection of cultural property from loss and depletion. As such it is concerned primarily with the physical well-being of cultural and historical resources by observing and analyzing their form, production, and meanings; conducting investigations to determine the cause and effect of deterioration; and directing remedial and preventive interventions focused on maintaining the integrity and survival of the resource. This does not assume *a priori* a singular dedication to the physical fabric alone but rather to the entire resource including the associated intangible qualities thus bringing the conservation process back into the social realm of people, places and things.

A professional discipline

Conservation is an intellectual activity based on a systematic way of thinking that is built on a body of knowledge, skills, and the ability to analyze and solve complex

problems. In any discipline, members systematically collect facts and study both the nature of the questions as well as the answers generated. From this, a clearer understanding and correlation between the questions posited and the facts generated eventually becomes established. This leads to shared methodologies conditioned by philosophical and intellectual concerns, which in the case of professional disciplines defines and guides practice. Theory and practice must therefore move unilaterally together in identifying the issues and problems confronting cultural works, positing approaches and solutions, and most importantly periodically re-evaluating the validity and usefulness of both.

Like all disciplines, conservation is shaped by its historical habit and by contemporary concerns. Although these concerns and their practice can be traced to earlier interests, the field has matured and specialized, developing a theoretical and methodological framework drawn from both the humanities and the sciences. We now have a good understanding of the questions and the methods of conservation with several decades of experience that we need to further compile, analyze, evaluate, and synthesize for educational as well as professional applications. Now after nearly three quarters of a century of formal practice, institutional representation, the creation of national and international organizations and journals, and the development of academic training programs in artistic, historical and architectural resources, a professional maturation of the discipline is evident.(2)

In this regard contemporary conservation possesses most of the characteristics of a profession as summarized by Gardner and Shulman: it is defined by a body of theory or special knowledge; it embodies a specialized set of professional skills, practices, and

performances unique to the profession; it possesses the developed capacity to render judgments with integrity under conditions of both technical and ethical uncertainty; it involves an organized approach to learning from experience both individually and collectively and, thus, of growing new knowledge from the contexts of practice; it has a commitment to serve the interests of clients in particular and the welfare of society in general; and it is represented by a professional community responsible for the oversight and monitoring of quality in both practice and professional education. (2005, 2) (3)

By the mid nineteenth century, nearly all the principal professions established themselves in America, setting up professional organizations, codes of ethics, licensing laws, and schools. Ethics and ethical practice have long been associated with conservation. Implicit in the word and concept of heritage are the notions of value and birthright, each conveying and establishing a moral imperative in the treatment and protection of this collective human inheritance. If we extend ethics to mean the moral principles or rules of conduct by which a person is guided, then when applied collectively to members of a profession, ethics define the duties and responsibilities each member has to the public, to each other, and to themselves in regard to the exercise of their profession. (*Oxford English Dictionary*). Such principles help define notions of right and wrong and actions appropriate and inappropriate, which are based in part on defined parameters and criteria established within and by the profession. These principles in turn are often applied in the creation of policy and courses or plans of action. Such standards were first developed to define and guide conservation practice in the United States in the 1960s with the publication of the *Standards of Practice and Professional Relationships for Conservators (The Murray Pease Report, adopted 1963)* and the *Code of Ethics for*

Art Conservators (adopted 1967) by the IIC-American Group.

. As a result of these and other national and international codes and standards, contemporary conservation, regardless of its focus, has developed the following principles as the foundation for ethical professional practice:

- the obligation to perform research and documentation; that is to record physical, archival, and other evidence before and after any intervention to generate and safeguard knowledge embodied as process or product;
- the obligation to respect cumulative age-value; that is the acknowledgement of the site or work as a cumulative physical record of human activity embodying cultural beliefs, values, materials and techniques, and displaying the passage of time;
- the obligation to safeguard authenticity; a culturally-relative determinant of value associated with the materiality or act of making or re-making a thing or place as a way of ensuring authorship or witness of a time and place;
- the obligation to do no harm, either by performing minimum intervention that will re-establish structural and aesthetic legibility and meaning with the least physical interference; or that will allow other options and further treatment in the future.

Like many professions today, contemporary conservation is a field increasingly defined by its subspecialties, traditionally classified by the type of resource conserved (e.g., paintings, books and manuscripts, ethnographic objects, buildings, landscapes). Despite this ability (and necessity) to specialize, all conservation is defined as much by its critical approach as it is by its overall objectives. This assumes a basic sequential process: examination and documentation, analysis, diagnosis, intervention (treatment), and maintenance and management. Each of these phases is defined by a specific knowledge and skill set whereby the skill necessary to satisfy the requisite knowledge will be defined by the nature and scale of the resource under study. (4) For example, while established principles

guide the outcome of any phase of the conservation process, such as the requirement of reversibility/retreatability, this will be satisfied in different ways for different cultural resources and will therefore require different skills. Housing a rare manuscript collection in an environmentally stable environment is akin to designing and installing a shelter over an archaeological site. Both actions satisfy the fundamental principles of minimal fabric intervention, retreatability, and focus on proactive long-term prevention (preventive conservation). Both actions assume an understanding of the environment and its effects on the resource (including display), as well as environmental monitoring and manipulation. However each response requires specific skills to design and implement the solution.

Finally, as with law, medicine, architecture, and engineering, conservation is a learned profession in that academic learning is held to play an important role in preparation for practice. By practice I mean using the knowledge available to solve specific real-life problems. One of the hallmarks of a professional life is the continual effort to keep theory and practice together. Professional life is not simply the domain of the practical, a place where "real world" concerns dominate to the exclusion of lofty, academic or theoretical concerns, but the idea that theory and practice are professional activities, intended to directly enhance the quality of human life. Keeping theory and practice together is the essential ingredient of professional education, research and training. This complex interrelationship is best expressed in service to public need and use of public issues as academic training for students and professional staff. As Benjamin Franklin wrote over two hundred years ago, "Service to humanity is the great aim and end of all learning."

Because knowledge and skills learned without conceptual understanding or functional application to problems are either forgotten or remain inert, it is the purpose of

formal education to develop habits of critical thinking, of perceiving issues clearly, and generalizing from data. As in all professions, critical thinking is based on a progression from information collection to knowledge of information acquisition and understanding; however as Schulman cautions, we must recognize the influence of “signature pedagogies” in shaping practitioners and defining professional disciplines. (Shulman 2005) Individual professions have long been characterized by their signature pedagogies: law by case dialogue method, medicine by clinical bedside teaching, and design by studio performance.

Although conservation is a relatively new professional discipline by comparison and no formal professional certification or licensing yet exists, most academic programs at the graduate level embrace a pedagogy based on a mix of courses in history, theory, technology, and praxis. While this diversity of subjects represents the hybrid nature of conservation, it is praxis or “the means of practice” which is often the dominant dimension of conservation pedagogy. When situated in a well-balanced program that engages students in the intellectual, the technical, and the moral, praxis-based education links understanding with skill in a way that requires students to interact with their peers, demonstrate accountability, and in general act out professional dispositions.

Unfortunately, too few funded opportunities exist for students studying architectural conservation to learn through formalized praxis. Although external internships are a requirement in most academic programs, opportunities usually depend on the random availability of specific site needs and funding. Many foundations established to promote the conservation of the built environment tend to focus their programs on such site-

specific needs rather than on training, which, if included, is often accommodated as a secondary benefit.(5)

Collaboration for research and training

Recognizing the direct and inestimable importance of academic research and praxis-based training for conservation and cultural resource management, the University of Pennsylvania and the National Park Service entered into a collaborative partnership in 1991, to explore the mutual benefits of such a relationship. For the past fifteen years, despite a lack of political will and shrinking fiscal resources, both institutions have tackled the issues of technical research and professional training in conservation with a global perspective focused on the exigencies of continuing and accelerating deterioration of park resources.

The establishment of the National Park Service in 1916 and its mandate to preserve and manage the country's most significant natural and cultural resources in public trust constitute one of the most important acts of the early preservation movement in the United States. Long recognized for their recreational value, national parks and monuments also provide the public with educational and inspirational opportunities through the country's cultural and natural resources. Early proponents of the National Park Service wisely argued that contact with real things and the ability to have an authentic experience awakens a desire for explanation, for an increase in knowledge making education a continuous process for the greater public.

This suggested the development of an active program of applied research and training through the use of the national parks as field laboratories. The germ of the educational idea came into being shortly after the agency's founding with the first director, Stephen T. Mather, through utilization of the national parks and monuments by universities

and colleges as outdoor classrooms or field schools to supplement academic study in the natural sciences. In 1918, recognizing the growing importance of national parks as field laboratories for educational institutions, a National Park Educational Committee was organized, later becoming the National Parks Association. By 1930 the Branch of Research and Education was established in Washington D.C. to coordinate the various educational phases of park work in natural and cultural resources. As stated by the NPS at the time, "Universities may afford better classroom work, better library facilities, and better lectures, but it is believed that nowhere can people find better objective materials for study or receive better training in interpreting phenomena..." (Bryant and Atwood, 1932).

Administering and managing cultural resources has become ever-more complex due to the amount of information needed about resources to understand, protect, and preserve them. Critical baseline information and overall internal programming of routine monitoring and evaluation of conditions and interventions is desperately needed. As early as the 1930s, the Southwest Region recognized this by embarking on a coordinated program of recording, experimentation, and monitoring of treatment approaches focused on the stabilization of archaeological ruins. In the 1970s this expanded to include cooperative research on site testing programs to develop and evaluate current and proposed future treatment considerations. This effort, remarkable for its time, has been nearly forgotten with changes in personnel and management structure and the continuing desire to outsource the responsibilities of problem-solving. One new initiative, the Vanishing Treasures Program within the National Park Service, has attempted to reverse this trend through a collective approach to the problems of archaeological ruin sites and a sharing and investment in process, solutions, and specialized skill training.

Now as then, it is clear that proper interpretation and protection of park resources is dependent upon the possession of accurate scientific knowledge through the development of institutional partnerships. This is especially true for cultural sites as relevant technical research is heavily underfunded and therefore unavailable for application, and professional conservation involvement has been slower to develop and be applied than for the natural or physical sciences. By identifying and developing park-specific problems as larger topical or regional issues such as the study of soil amendments for the preservation of earthen architecture, the deterioration and mechanical repair of “Pennsylvania Blue Marble” or digital recording methods for architectural surface finishes, practical research and training are accomplished while providing coordinated, sustainable solutions for better site management and technical assistance to the parks.

Because of the unique multi-disciplinary nature required for the conservation of cultural property, one primary form of learning is through supervised field experience. Internship provides immediate and constructive feedback at a critical point in a student’s or practitioner's career. The pragmatic mix of improvisation and rigorous attention to detail necessitated by the contingencies of field research makes a lasting impression on students who have known only classroom situations. As a result field experience through graduate and post-graduate internship programs conducted through institutional collaboration has allowed a critical component of the professional training of conservators to be realized while providing much-needed service to park sites.(6)

Integrating theory and practice

In the American Southwest, indigenous pueblo cultures are a vital part of the region's contemporary mosaic of ethnic diversity. This is especially evident through their

long-standing relationship to the land and landscape as reflected in the continuity of place for all pueblo communities and the countless number of ancestral sites that figure prominently in contemporary beliefs and practices. Many of these sites such as Casa Grande, and Mesa Verde were among the first cultural resources to be designated and protected by the federal government and recently many sites have gained further recognition and legal protection as traditional cultural properties. Yet despite this recognition, protection, preservation, and interpretation of these sites according to existing theories and models of conservation have proven to be difficult. Based on the recognition that such places remain critical to the continuing identity of Native peoples and that many of these are simultaneously visited and enjoyed by the public; their preservation and respectful management have become a relevant, timely and sometimes controversial issue.

Beginning in the 1990s, the University of Pennsylvania and the Santa Fe Regional Support Office of the National Park Service in consultation with various Native American tribes, inaugurated an integrated research and training program focused on the conservation and management of the region's archaeological resources. Parks included El Morro and Bandelier National Monuments in New Mexico and Mesa Verde National Park in Colorado. These projects afford a critical examination of the theoretical and ethical issues surrounding the preservation and management of ancestral archaeological sites and the methods required for their stabilization and interpretation as archaeological remains, living cultural landscapes, and recreational areas. Professionals, students, and pueblo affiliates have engaged in documentation, condition survey, and preservation treatments of the ancient puebloan structures and landscape. From this effort, strategic

conservation plans have been developed and their implementation explored through annual training programs involving pueblo and university interns as well as professional archaeologists and cultural resource managers. Joint partnerships not only bring a mix of participants but also a broader funding base extending the limited financial resources of the parks and redefining site problems into educational possibilities.

The issues encountered in archaeological sites that are traditional cultural properties and ethnographic landscapes are multi-disciplinary in nature. Accordingly, the emphasis of a collaborative program is on developing mutually acceptable solutions with input from both natural as well as cultural resource specialists and from the various stakeholders. In this context, conservation is most effective in shifting the false perspectives of disciplinary isolation (e.g., natural vs. cultural) which has long plagued resource management. In social terms, such sites have generated official policies which require the agency to consult with Native American and other traditional groups in park planning, management actions, and research activities. For example at Bandelier National Monument, the major focus of the recent preservation program has addressed the theoretical and ethical issues and technical problems of ancient trail and ruins stabilization, graffiti mitigation, visitor access, and site interpretation. (Matero 2004)

Pueblo and non-native participants have explored the natural and cultural context of park sites including their environmental changes, archaeological and preservation histories, and past and current uses ranging from recreation to ceremonial. They have also surveyed resource significance and condition to understand and develop intervention priorities addressing the problem through technical solutions as well as policy planning including restricted access.

The objectives of the collaborative program have been twofold. First, at a didactic level, it has sought to raise the awareness of the interdisciplinary and highly specialized nature of working in National Park Service-managed Native American ancestral and archaeological sites among professional conservators, planners, architects, environmental scientists, landscape architects, anthropologists, and museum professionals. Each needs to understand the perspectives of the other as well as how best to integrate this knowledge with the contributions of all stakeholders. Second, the affiliated tribal communities have been directly involved during all phases of research, analysis and implementation. All have cooperated closely, both during the analysis, planning, and implementation, to help develop solutions that respond fully to the inherent complexity of intervention, visitation, and tribal use and beliefs. Ultimately the aim has been to promote and reinforce awareness about traditional values and uses while developing sound conservation solutions to the problems of resource degradation, culturally insensitive treatments, and disruptive visitor use among both professional managers and stakeholders.

At a practical level, the program has addressed specific problems through site-specific field work. In so doing, it has offered assistance through training to pueblo interns, conservation students, and resource managers in their effort to identify, discuss, and develop the strategies and practical actions needed. It has brought field-based problems into the academy where research protocols have been developed, tested and then re-introduced back into the field. Most importantly, it has exposed students to the complexities of ethical behavior and professional conduct.

Time will tell just how successful contemporary education is in preparing practitioners for the conservation of the historic built environment, especially as that environment is redefined, expanding with changes in future social, cultural and political views and the need for greater technological prowess. Nevertheless, it is likely that the need to teach students to think, to perform, and to act with integrity will remain an integral part of professional education and one with a strong link to praxis.

Notes

1. If we accept the premise that the modern practice of conservation began with the etiological study of the underlying causes of deterioration, then it was in 1888 when Friedrich Rathgen was appointed at the Royal Museums of Berlin to study the deterioration of artifacts and their treatment, that the modern discipline was born. Rathgen also published the first handbook on conservation in 1898, *The Conservation of Antiquities* (translated into English in 1905 as *The Preservation of Antiquities*.)
2. In the 1920s and 30s art museums in Europe and the U.S. were the first to establish research laboratories for the study and treatment of works of art. In 1933 *Technical Studies* was one of the first journals devoted to conservation published by the Fogg Art Museum at Harvard University, later becoming *Studies in Conservation*. In 1946 and 1950 the International Council of Museums (ICOM) and the International Institute for the Conservation of Historic and Artistic Works (IIC) was founded respectively followed by the International Centre for the Study of the Preservation and the Restoration of Cultural Property (ICCROM) in 1959 and the International Council on Monuments and Sites (ICOMOS) in 1965. In 1972 the IIC-American Group was established, later becoming the American Institute for the Conservation of Historic and Artistic Works (AIC). Academic training programs in conservation began in the 1960s first in fine arts and later in architecture.
3. Currently no recognized professional standards exist for academic programs in conservation in the United States or for certification of a conservation professional; however the American Institute for Conservation of Historic and Artistic Works is working toward establishing both for its membership. See “Defining the Conservator: Essential Competencies.” The American Institute for Conservation of Historic and Artistic Works, 2003. Online. Internet. July 30, 2006.
Available: <http://aic.stanford.edu/about/coredocs/defingcon.pdf>

4. I am indebted to the late Carolyn Rose for introducing me to her concept of the knowledge and skill set relationship which she developed for collections care during our time together on the Qualifications Task Force for the American Institute for the Conservation of Historic and Artistic Works.
5. Two notable exceptions to this trend are The Samuel H. Kress Foundation and the Keeper's Fund. Both programs provide primary funding for student training in architectural conservation.
6. Since 1991, over 150 graduate students and professionals at the University of Pennsylvania have been field-trained in conservation as a result of this external program.

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