

Conservation

The Getty Conservation Institute Newsletter ■ Volume 24, Number 1, 2009



The Getty Conservation Institute

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The J. Paul Getty Trust

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Conservation, The Getty Conservation Institute Newsletter

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Front cover: Instructors and participants in a May 2008 site management workshop at Dougga, an ancient-Roman World Heritage site in Tunisia. The workshop was organized by the GCI and Tunisia's Institut National du Patrimoine. *Photo:* Christian De Brer, GCI.

The Getty Conservation Institute works internationally to advance conservation practice in the visual arts—broadly interpreted to include objects, collections, architecture, and sites. The Institute serves the conservation community through scientific research, education and training, model field projects, and the dissemination of the results of both its own work and the work of others in the field. In all its endeavors, the GCI focuses on the creation and delivery of knowledge that will benefit the professionals and organizations responsible for the conservation of the world's cultural heritage.

The GCI is a program of the J. Paul Getty Trust, an international cultural and philanthropic institution that focuses on the visual arts in all their dimensions, recognizing their capacity to inspire and strengthen humanistic values. The Getty serves both the general public and a wide range of professional communities in Los Angeles and throughout the world. Through the work of the four Getty programs—the Museum, Research Institute, Conservation Institute, and Foundation—the Getty aims to further knowledge and nurture critical seeing through the growth and presentation of its collections and by advancing the understanding and preservation of the world's artistic heritage. The Getty pursues this mission with the conviction that cultural awareness, creativity, and aesthetic enjoyment are essential to a vital and civil society.

Conservation, The Getty Conservation Institute Newsletter, is distributed free of charge three times per year, to professionals in conservation and related fields and to members of the public concerned about conservation. Back issues of the newsletter, as well as additional information regarding the activities of the GCI, can be found in the Conservation section of the Getty's Web site. www.getty.edu/conservation/



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A Note from the Director

By Timothy P. Whalen

THIS EDITION OF *Conservation, The GCI Newsletter* highlights education and training at the GCI.

Education has always been a core activity of the Institute, as it is an important means to advance the practice of conservation and, with it, the professionalism of the field itself. The Institute has pursued a range of educational activities over the years, from courses and workshops to field-based activities that allow a direct exchange of new information and ideas with other colleagues.

There is a large audience of conservation professionals who, like professionals in other disciplines, need opportunities to increase their own learning in pace with the advances of the field. In the conservation field, there are relatively few providers of midcareer training for professionals on either the national or international level. For this reason, we decided that the Institute should serve the learning needs of the field through a department dedicated to the design and implementation of education and training projects for professionals.

So it was that in October 2007 GCI Education became a freestanding department within the Institute. The work of the Education department, like that of the Institute itself, addresses both built heritage and collections. Its programs—which reflect both the needs of the field and the GCI's own areas of expertise—are international, generally focusing on countries or regions of the world where professionals may be underserved by the existing cadre of educational providers. In coming years, we expect to offer more courses that draw upon the research undertaken at the GCI; this will allow us to expand our audience as we bring new technical developments from our labs into conservation practice. The Education department will also take a leadership role in investigating new methods and media for teaching and learning, bringing in new ideas from the mainstream of education to the teaching of conservation.

We have always operated under the premise that education initiatives are among the most effective means the GCI has of contributing to the development of the conservation profession. With this edition of our newsletter, we are pleased to give you a glimpse into the thinking behind this important part of our work.

A final note: the next edition of the GCI newsletter will be published in October of this year with a new design and a new name—*Conservation Perspectives: The GCI Newsletter*. The newsletter will now appear twice a year, in the spring and in the fall. While the publication remains free, subscribers need to complete and return the subscription renewal form they received earlier this year in order to continue receiving the publication. If you are currently a subscriber and have misplaced your renewal form, you can resubscribe online at www.getty.edu/conservation/subscribe/. We also invite you to subscribe online to the new *GCI Bulletin*—a free, bimonthly e-bulletin with the latest information on GCI projects, activities, and publications. To sign up, please go to www.getty.edu/conservation and click on the *GCI Bulletin* link.

We hope that you find this edition—and future editions—of the newsletter to be helpful in illuminating the variety of issues facing the conservation field.

Conservation Education at the GCI

Past, Present, and Future

By Kathleen Dardes

GCI senior project specialist Thomas Roby working with two participants from the Mosaics In Situ's technician training program at the site of Dougga, Tunisia. Photo: Aurora Ortega de Torre, GCI.



AS TIM WHALEN EXPLAINED IN HIS INTRODUCTION to this edition of the newsletter, Education became a freestanding department within the Getty Conservation Institute in October 2007. While the department itself is relatively new, GCI involvement in education goes back a long way—in fact, to the earliest days of the Institute itself. For more than a decade, the GCI's Training Program offered an ongoing series of short courses and workshops addressing a range of topics that dealt both with built heritage and with museum collections. The GCI has also continued a long-standing tradition of incorporating training into its field projects, tailoring efforts to the learning needs of specific groups of professionals within the countries or regions where our work occurs (see “Dialogue,” p. 10). The educational activities of some of the Institute's field projects have produced didactic resources that can potentially be much more broadly used in other teaching contexts—a recent example being *Technician Training for the Maintenance of In Situ Mosaics* (2008), published by the GCI and the Institut National du Patrimoine of Tunisia. This compilation of materials was developed over the course of several teaching campaigns in Tunisia.

While these field-based training activities have been successful, the need for education and training in a number of other areas (both thematic and geographic) has increased over the years, reflecting the rapid growth of the conservation field itself and, with it, the expansion of its body of knowledge. Advances in research have yielded better understanding of materials and their mechanisms of deterioration, and these developments have produced innovations in preventive and interventive treatments. New specialty areas have emerged to address the preservation requirements of contemporary and nontraditional materials, media, and technologies. While conservation was once viewed as a largely technical field, conservation professionals now must be alert to the cultural, spiritual, economic, and other values inherent in heritage—values that may play a role in their decision making. In short, conservation's knowledge base is not just increasing—it is changing.



Left: Participants in the 1987 course Preventive Care of Historic Photographs—one of the many training courses offered by the GCI through the mid-1990s at its Marina del Rey facility. Photo: Thomas Moon, for the GCI.

Right: Instructors at the Teamwork for Integrated Emergency Management course in southeast Europe preparing materials for an exercise on salvaging objects after an emergency. Photo: Foekje Boersma, GCI.

To serve the expanding learning needs of the field, the GCI, in the early part of this decade, began to lay the foundations for a department that would focus exclusively on conservation education and training. While training would continue within the context of most of the GCI's Field Projects, the new Education department would give the Institute the opportunity to target specific topics or audiences that lay beyond the scope of fieldwork.

The first few years of the Education department have been ones of growth and reflection. As new staff joined the department, fresh voices were added to an ongoing and far-ranging discussion on how the strengths of the Institute could best meet the learning needs of the field. Participating in many of these conversations were colleagues working either with museum collections or with built heritage, and they articulated needs that they had observed within these areas. Especially important to this process were discussions with professionals working in regions of the world where the field of conservation is still nascent and where additional training and networking opportunities would contribute to the further development of the profession.

This combination of consultation and contemplation created the foundations of GCI Education's current work program, which will evolve further as the department expands. Most of our educational activities will focus on areas where the GCI has had a long track record, whether gained from research or from fieldwork—or both. These areas include the conservation and management of archaeological sites, the environmental management of collections, and the conservation of photographs. Newer but growing research areas within the GCI—for example, the conservation of modern and contemporary art—will result in training activities that respond to the urgent need to improve understanding and treatment of this class of materials.

As we consider the needs of the field itself, we will also explore some new possibilities for pedagogy—the theory and practice of teaching—and how it is reflected in conservation education. Recent developments within the education field, and the increased use of electronic technology, have significantly expanded the possibilities

for teaching and learning, for collaboration and networking, and for building a strong community of practice among professionals. One of our priorities as a department is to research and apply innovations in teaching and learning to the GCI's educational work, adapting them to the working contexts of the participants of our projects. However, a fundamental first step in exploring pedagogy is to reflect upon the learning process itself, especially as experienced by adults, to understand better the motivation for and uses of learning by professionals. In other words—why do people learn, how do they learn, where do they learn, and how do they apply learning in their professional lives?

How Professionals Learn

Education, especially for the professions, is a process that involves more than learning about a topic. It's about learning to become a professional, equipped with the expertise and the ethos to function within a community of peers. The fact that professionals in a given field possess certain traits in common may have less to do with the content of the formal instruction they received than with how, through ensuing experience, they learn to function within a professional community whose members share the same values, knowledge, skills, code of conduct, and language. Professionals get their start in the classroom, but they become fully formed by the workplace, whatever it may be. We learn first from teachers and fellow students, and later from colleagues, mentors, and supervisors.

A tenet of formal education, particularly for the professions, is that it prepares the way for lifelong learning. The concept of lifelong learning emerged from the influential report *Learning to Be* by Edgar Faure and colleagues (UNESCO, 1972), which defined education as a process that extends well beyond traditional academic settings. The Faure report was also the first to promote the idea of a learning society in which individuals enjoy opportunities throughout their lives to expand knowledge and adapt their skills to changing personal and professional circumstances.

Nearly forty years after the Faure report was published, these concepts endure as cornerstones of modern educational thinking



Instructor Monique Fischer (right) discussing the condition of a photograph with a participant in the Fundamentals of the Conservation of Photographs course, a three-year program for conservation professionals in central, southern, and eastern Europe. Photo: Sean Charette, GCI.

and practice, particularly in the professions. Students entering an academic program in preparation for a professional career soon discover that their education will not end in a few years' time with the conferring of a degree or diploma. Rather, they have made a commitment to lifelong learning, which means increasing their expertise at every career stage as a responsibility of their chosen field. As is the case in other professions, students of conservation are advised of this responsibility as part of their orientation to the field—for example, by the brochure *Conservation Training in the United States*, published by the American Institute for Conservation of Historic and Artistic Works (2001).

However, lifelong learning does not mean lifelong schooling. As the Faure report and subsequent literature have noted, lifelong learning is a process that includes both formal and—to an even greater extent—informal learning. While formal education is the traditional portal into most professions, the ability to evolve and “to learn to be” a full practitioner is, in large part, the product of the informal learning that occurs in the workplace. Informal learning is the knowledge transmitted through unstructured situations—conferring with a peer, reading a journal article, researching a problem encountered on the job, engaging in shoptalk with colleagues—in other words, the sorts of activities that characterize the working lives of most professionals. Although seemingly random and spontaneous events, these are, in fact, knowledge-creating activities that expand expertise and allow professionals to respond to new or changing circumstances. Indeed, most of the knowledge that humans acquire—whatever their walk of life—occurs outside a formal learning environment in circumstances that, although unstructured, are highly important. Informal learning is usually self-directed and socially driven, requiring access both to information and to other people who may be needed to interpret or validate that information. While informal learning cannot replace formal education (which provides knowledge fundamental to a field), it does have a critical role to play. It contextualizes and expands upon formal learning by taking it from the classroom and applying it to circumstances in real life.

As professionals move through their careers, they are likely to evolve in any number of ways, pursuing additional learning through both formal and, mostly, informal means. Some career paths may demand sudden and frequent change, while others call for more subtle and steady growth. Some knowledge and skills acquired at the start of a career may seem less important later on—or may become obsolete altogether—as new materials and technologies come into use and demand new understandings or behaviors from practitioners. An individual whose work may be largely technical at one stage of a career may assume an entirely different role—perhaps as a manager or an educator—at a later stage. In these roles, technical knowledge is still important, but different and newer skills are required. In the workplace, informal learning provides the timely information and stimuli that allow people to cope with changing or uncertain circumstances. Learning fuels adaptation, as new information is acquired, tested, refined, and finally integrated into professional practice. By the time most people are ready to retire, it is estimated that at least 70 percent of the job-related knowledge they've acquired over the years has been obtained through informal learning (Center for Workforce Development, *The Teaching Firm: Where Productive Work and Learning Converge*, 1998).

Education planners, who tend to focus on the more structured aspects of learning, often overlook the importance of informal learning in the development of professionals and of the professional ethos. In education for the professions, internships and residencies come closest to providing the type of learning that most professionals experience in the workplace. While they cannot strictly be classed as informal learning—given that they generally exist within the framework of a structured and formal program of learning—they do prepare younger professionals for the type of informal situational learning that will be a large part of their lives in the workplace. By combining planned learning experiences with the randomness of real life, internships and residencies offer opportunities for interaction, problem solving, and coping with the uncertainties of the workplace. As such, they provide important transitions from academia to praxis.



Conservator George Bisacca (Metropolitan Museum of Art, New York) and Jose de la Fuente (Prado Museum, Madrid) working on Albrecht Dürer's panel painting *Eve* at the Prado Museum, October 2008. The Getty's Panel Paintings Initiative is a multiyear project designed to address the need for educational resources and training opportunities in the structural treatment of panel paintings. Photo: Courtesy George Bisacca.

The GCI Approach to Learning

As is the case with other professions, many skills needed in conservation are acquired or honed outside the boundaries of traditional classrooms. As the GCI Education department considers how it will respond to challenges in the field, we anticipate that short courses and workshops, which can focus quickly on the immediate needs for information and skill building, will remain an important part of the Institute's work. However, our work will also reflect the fact that education does not stop with formally organized courses but is experienced throughout a career. We anticipate making more and better use of opportunities for informal learning and the interpersonal connections it entails. This will be particularly important in areas of the world where conservation as a field is relatively young and where some professionals may have limited contacts with peers elsewhere.

One way to extend learning into the workplace is to blur the traditional boundaries of a course. A course or workshop no longer needs to be defined by a specific time period or by a particular location. Given the communication possibilities provided by electronic technologies, a formal learning experience that began in a traditional classroom setting may now be extended, and even transformed, through distance learning, coaching, and mentoring. Often less structured than a classroom-based course, mentoring and coaching provide the essential ingredient of informal learning—social interaction—that in turn fosters a sense of professional community and identity.

Mentoring as an adjunct to classroom learning in conservation education was first explored in the Teamwork for Integrated Emergency Management courses, a collaboration of the GCI, ICOM (International Council of Museums), and ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) (see *Conservation*, vol. 23, no. 1). Since then, the GCI has applied this model to a series of annual courses, *Fundamentals of the Conservation of Photographs* (see p. 16). The design of these courses includes mentoring between instructors and course

participants, as well as among groups of participants, for a period of several months following the classroom phase of the course. Mentoring guides the activities that participants pursue in the workplace, as they draw upon the information presented earlier in the classroom. As they undertake this work (either individually or in collaboration with fellow participants), they remain in contact through a course Web site with instructors who may advise, comment, or provide additional information.

Mentoring can be adapted to a specific context, including situations where it may be difficult to maintain long-distance relationships through electronic communication. An example can be found in the two training components of the GCI's Conservation of Mosaics in Situ project—one directed to archaeological site managers and the other to mosaic technicians. These two components involved a series of training workshops or campaigns for personnel responsible for caring for Tunisia's rich heritage of archaeological mosaics. Most of the participants took part in a series of training campaigns designed to support an incremental process of learning and experience. Between each training campaign, the participants applied what they had learned to their own work sites; an instructor visited the work sites to assess progress and provide additional mentoring as required. Critical to the success of this learning model is an instructor-participant relationship that extends beyond the temporal boundaries of a single short workshop or training event. Longer-term encounters facilitate better understanding and more confident practice. A somewhat different approach, although one that still depends upon a longer-term engagement with groups of learners, can be found in the GCI's Southeast Asia initiative (see p. 18). While the initiative's courses and meetings involve different groups of individuals and institutions, these events are designed to build a regional community of practice.

Over the next several years, the GCI will undertake a number of new strategic education initiatives, each focusing on a specific topic or region. These initiatives will be carried out in partnership with other international or regional organizations, as well as other entities of the Getty Trust. An example is the Panel Paintings



Workshop participants analyzing the conditions of a deteriorated structure at the World Heritage Site of Vat Phou, Lao People's Democratic Republic. This workshop was part of the GCI's Built Heritage in Southeast Asia Conservation and Education Training Initiative. Photo: Jeff Cody, GCI.

Initiative, a collaboration of the GCI, the Getty Foundation, and the J. Paul Getty Museum (see p. 20). The Panel Paintings Initiative aims to address the long-standing need for training in the structural stabilization of panel paintings. One of its objectives is to develop residencies in panel paintings stabilization, which will allow younger practitioners to work closely with and learn from a number of experts practicing in Europe and the United States. Regular updates on this and other education initiatives undertaken by the GCI will appear in future issues of the newsletter, as well as on the Getty Web site.

As the Education department expands over the next several years, pedagogy will be an increasingly important area of research, particularly as it applies to conservation, to the audiences we're likely to serve, and to the contexts in which they work. An important aspect of this work will be the development of case studies that reflect the complex real-life situations encountered by conservation professionals in the course of their work. While case studies are common in business, legal, and medical education, their potential has not been fully explored in conservation education. Case studies developed by the GCI will offer an array of issues and viewpoints and will frequently require that learners engage in interdisciplinary collaboration to reach an agreement. These case studies, after being field-tested in the GCI's education projects, will be made available to other teachers through the Getty's Web site. For example, the GCI has created a preventive conservation case study of a historic house museum in Amsterdam (www.getty.edu/conservation/education/case/case_component1.html).

Lifelong Learning and Connections

In recent years, the field of education, considered broadly, has been going through a remarkable transformative phase, driven in part by technological advances that have inspired new ways of thinking about and pursuing learning goals. Many of these developments hold considerable potential for conservation education, both in the classroom and in the workplace. In the future, lifelong learning for conservation will likely mean more than simply acquiring new

information and skills. The extra and enriching dimension is the connectedness that results from increased peer interactions, whether these come in the form of face-to-face communication or are aided by some form of information technology. Indeed, Web 2.0 applications that assist communication and collaboration—blogs, social networks, discussion forums, and wikis—may be what give the biggest boost to a global community of lifelong learners, eager for both information and connection. As these communication tools become more common, they are likely to grow in importance in areas where the conservation field is still developing.

Learning has expanded into new settings—the workplace, the field, and even cyberspace—presenting fresh opportunities for both formal structured learning and informal learning. Given the rapid pace of scientific and technological advances in the field, particularly in recent years, conservation professionals need to be prepared to assimilate new scientific or technological advances quickly, as well as adopt new ways of thinking and learn new applications within their areas of expertise. At the same time, they will find the advantages of being part of a more socially connected community, as information technologies expand the geographical reach of the workplace. As the GCI Education department grows, our work will increasingly extend beyond the walls of the classroom and the boundaries of traditional courses, reflecting the fact that learning must happen where and when it is needed.

Kathleen Dardes is head of GCI Education.

Out in the Field

A Discussion about Education and GCI Field Projects

Neville Agnew is senior principal project specialist with GCI Field Projects. A member of the Institute's staff for over twenty years, Agnew, a chemist by training, has served in several leadership positions at the GCI and has headed up a number of collaborative field projects. These have included work in China and on the Iraq Cultural Heritage Conservation Initiative, as well as the Southern Africa Rock Art Project. His newest project focuses on conservation and management for the Valley of the Queens in Egypt.

Francesca Piqué was formerly a project specialist with GCI Field Projects. Piqué, with a background in both chemistry and wall paintings conservation, worked on GCI projects in China, Benin, Israel, the Czech Republic, and Tanzania, as well as Italy (her native country). Now based outside of Florence as a conservation consultant, she continues to work with the GCI on the Organic Materials in Wall Paintings project and on the project at Herculaneum.

Thomas Roby is a senior project specialist with GCI Field Projects. With a background in archaeology and conservation, Roby worked as a private conservator based in Italy for fifteen years, prior to joining the GCI in 2001. Since coming to the Institute, he has managed the GCI's Conservation of Mosaics In Situ technician training program in Tunisia. He also served as the GCI's senior project conservator on the development of a conservation plan for the hieroglyphic stairway at the Maya site of Copán in Honduras.

They spoke with Kathleen Dardes, head of GCI Education, and Jeffrey Levin, editor of Conservation, The GCI Newsletter.

Kathleen Dardes: *From the beginning, education and training have been an important part of GCI Field Projects, which seeks to advance conservation practice through model field projects around the world. In all of these projects, the GCI works with local partners to enhance expertise and to ensure the sustainability of the work. Obviously, training contributes to that.*

Since the three of you have been greatly involved in GCI Field Projects, we wanted your reflections on these efforts. In other words, what issues has the Institute been trying to address through the training that has been part of these projects; what approaches have you found to be most successful; and where should training out in the field go in the future?

Neville Agnew: Let me start by saying that there has been a shift in the Institute's approach to training in conservation in the field and in field projects. The GCI's former Training Program [1985–97] organized formal courses directed mainly at midcareer professionals and covering a variety of topics—intensive courses that ran from one to three weeks. This was very valuable, but it explicitly excluded technician training. So that group was a focus of our early training in our field projects. Our approach has broadened more recently to address in more pragmatic ways several levels of education and training.

At one level, it's decision makers. We try to fulfill this not necessarily through training, but we do try to influence through the collaboration, so that we achieve a common understanding. At the mid-stratum—which is the old stratum of midcareer professionals—there's still some focus. And then, thirdly, there is technician training. Very often these are the colleagues who do the work on the ground, so it's important to build their knowledge and skills.

One of our approaches is repeated course work with the same group, because one inoculation of training is seldom effective in the long run. You have to focus intensively on pretty much the same group and carry them through the process, so that they begin to adopt a new way of doing things and develop a good understanding of conservation principles and practice.

Francesca Piqué: I feel that the thinking behind GCI training is also related to the sustainability of our effort. If we work at a site in China or in Africa addressing a challenging conservation problem with our local partners—an effort that takes a lot of resources and a lot of time—we want to ensure that the results are sustainable over time. So training the local professionals, at all the different levels and in all aspects of the project, is essential. Also, we know that often the one-shot treatment is not effective enough, and that monitoring and maintenance are essential. It is important that we involve, through training and education, the local partners, so that after a project is completed, the results can be monitored and maintained by prepared professionals.

Ideally, everywhere we do a project, we should create a legacy of conservation experts who understand deterioration and are able to request help or do remedial treatment if the need arises. A good example of this is the St. Vitus mosaic project in Prague [www.getty.edu/conservation/field_projects/vitus/], where the post-treatment monitoring and maintenance of the protective coating for the glass mosaic are crucial. In this project, the conservation team included senior and experienced Czech conservators working with junior conservators, who would be able to learn and continue to pass on the knowledge and requirements for the monitoring program. The monitoring continues to be carried out regularly by a senior and a junior conservator.

Thomas Roby: I agree that for long-term sustainability, mixing formal training and informal training is important. In the Institute's Mosaics In Situ project in Tunisia [www.getty.edu/conservation/field_projects/mosaics/index.html], the idea was to focus on technician training, where, through a shorter program of study, we could begin to produce personnel who could work on sites on a daily basis. We've luckily had the opportunity in Tunisia—after the formal training, which lasts for two years—to return to the sites where our trainees have been working and to work with them in addressing new or more challenging situations that they might not be prepared for, or to help them establish their work in a new site. It's extremely important that there be continued mentoring and long-term support for the people we're training.

Piqué: I would add that when we work in a new country, we often deal with new problems and materials, and it's been useful for us to have this close interaction with the local experts because there is a lot to learn from them. We definitely learn what is available locally, how they use their materials, and how they have dealt with problems, as well as learn about different conservation methods that they may have. This aspect of exchange is very important because it enables us to develop an intervention together with the partners.



"We involve our partner organization in the methodology of the work and the thinking behind the methodology."

— Neville Agnew

Jonathan Bell, GCI.

Jeffrey Levin: *That's an important point. Neville, could you talk more about this interaction and how it builds a larger base of knowledge for both sides?*

Agnew: Our training in the context of the field projects themselves has been informal because the objective is to undertake the project collaboratively. We involve our partner organization in the methodology of the work and the thinking behind the methodology. Certainly we learn from them—particularly from their way of doing things but also from their understanding of their own culture and history, which is very informative to us and influences our thinking. An example would be the ways in which local communities have cared for rock art in southern Africa. They have a vested interest in taking care of their rock art, not only for tourism and economic reasons but often for traditional ceremonies. We have realized that to be effective, we have to adopt a multi-pronged approach to bring the partner staff into the equation and to influence them in a systematic way for the better.

One way in which we have been able to create a sustainable effect is through bringing partner organization staff to the Institute here in Los Angeles. This builds them into the project in ways that are of value to both sides. If you put yourself in the place of technicians or site managers in Africa or China who are descended upon by a team of Getty people to do a collaborative project—they have no real sense of where we're coming from and our professional context. So having them come to the GCI to work with us is an effective bridging mechanism.

Another way of striving for success is through mentoring on a regular basis. For example, our mentor in Egypt has a PhD in architecture and regularly visits our wall painting and site management teams in Luxor to spend a couple of days with them. From the project's perspective, mentoring is important not only for its educational component but because it maintains the project's momentum between campaigns.

Dardes: *In the initiatives of my department, GCI Education [www.getty.edu/conservation/education/about/], we've also seen the value of using mentors, although we use them in a somewhat different way. I am always curious about how people respond to mentors. I think there must be some compatibility between the mentor and the learner.*

Agnew: It's a good question. I think it depends upon the personality of the mentor. A mentor should be able to communicate in a way that is nonthreatening and should be seen by both sides as a communication link, gaining the confidence of the team.

Piqué: It is essential in projects to keep the momentum going. For example, in a project with two fixed campaigns per year, we would leave trainees a set of conservation or documentation and monitoring activities to be done in between campaigns. Nevertheless, it was hard to maintain the peak of the activity of campaigns after the GCI team left, and communication was difficult and costly. Nowadays, it is much easier to be in touch remotely, and the moment a trainee finds himself in a difficult situation or needs some advice and technical support, he can use communication tools like email, videoconferencing, and even Skype, which is free. Communication technology has advanced significantly compared to ten years ago, when we were working on the bas-relief project in Abomey [www.getty.edu/conservation/field_projects/abomey/index.html]. Then, even a phone call was difficult.

Levin: *Tom, how have you dealt with this challenge of maintaining momentum?*

Roby: Our approach has been to organize specific campaigns for generally six weeks twice per year, but between these formal campaigns, work assignments are given, and we have tried to have one of the teachers visit the sites where the trainees are based to ensure that the assigned work has been carried out satisfactorily. We have also organized a review, or refresher, campaign to bring the trainees together again after several years. And when the trainees are going to work in a new site, we generally make the effort to be with them and to try to coordinate their work from the beginning, in terms of documenting mosaics and organizing materials. This has been done in Tunisia with technicians, where they've lacked the supervising person, who would be the conservator.

Levin: *Are there other lessons you've learned over the years with respect to organizing this training?*

Roby: We started off expecting all of the trainees to be able to do all of the different aspects of mosaic conservation and maintenance, but we've come to realize that it's perhaps best to select trainees who will be able to be a bit more specialized in different aspects of the work. They still should have the basic background and even practi-



"If we work at a site . . . addressing a challenging conservation problem with our local partners, we want to ensure that the results are sustainable over time."

— Francesca Piqué

cal training in all aspects of the work, but now we look for people with different educational backgrounds so that they'll be more adept at different operations—creating a team not of specialists but of individuals with skills in different activities. There is an optimum level for, say, a technician who's mainly doing manual work, and then there's someone with a higher educational level who would carry out much of the documentation.

We've also adjusted how we do the training because, in many cases, the educational tradition of the country emphasizes memorizing and learning things by rote. We've tried to not get caught in the trap of providing, let's say, a manual of how to do things. It's extremely important to consider every situation and every mosaic individually and determine the appropriate treatments by applying principles, not recipes.

Agnew: So you're emphasizing analysis and decision making?

Roby: At the technician level, it's difficult to get the kind of analysis that you would expect of a conservator. But decision making about what are going to be the correct ingredients for making an appropriate mortar for a specific repair operation and situation? Yes. The amount of time we spend doing practical work with them helps build up their competence. For sure, with certain individuals who have a strong commitment and skills, we've seen that they can, at the end of a minimum of two years, begin to approach things on their own and appropriately adapt the methodology they've learned to different situations.

Piqué: In the Abomey project, we carried out training at two different levels. Our communication with the conservation trainees was in French, the country's official language. But when it came to training the technicians—the people who would be responsible for the regular monitoring—we decided that this training would be done effectively through the conservation trainees who spoke Fon, the local native language. The conservation trainees were the bridge between us. We prepared the course material, but it was actually the conservation trainees who passed on the information to the technicians directly in their language and in an effective manner.

Agnew: That's a very interesting way of doing things—having the involvement of a trainee group in teaching. Because that's actually how you learn—through teaching.

Piqué: It's so true. It was really effective for the conservation trainees to train the technicians. They felt that they had absorbed the concepts and the methodology of the work and were ready to pass it on.

Dardes: *One of the things the GCI Education department is doing is taking people who participated in a previous course and bringing them in as teaching assistants for new courses, so that they can, as Neville said, learn how to teach and learn to use our materials and resources as they partner with more experienced teachers. That's been extremely useful because it does, slowly but surely, build an education infrastructure.*

Agnew: One of the problems that we've faced wherever we've worked—particularly in countries where there's a tradition of rote learning and more top-down decision making—is that both conservation technicians and even conservation professionals are often expected to do physical interventions on cultural material. That is their job. And they are judged by that activity. What you tend to see is a haste to intervene. The approach is not first one of measured assessment, diagnosis, testing, and then, finally, intervention. In China, the China Principles [a GCI collaborative project that developed and promoted national guidelines for conservation and management of China's cultural heritage sites] has been a valuable tool in beginning to convey the importance of doing the assessments first. The last thing you do is intervene, not the first. It has been a huge challenge to break that mold and to inculcate a systematic methodological approach.

Piqué: That's absolutely the challenge. If we are working with and training at the level of the technicians but they don't have managers or supervisors who understand and support new ways of working—such as a methodology that doesn't embrace immediate treatment but favors stopping and thinking first—then it's impossible for training to be effective, and we risk losing all results.

Roby: In Tunisia we've seen lots of examples of technicians who've been expected to intervene immediately and quickly. They're often judged, as Neville said, on the amount of treatment work they're able to do, not on the quality. We try to address this pressure by having meetings on site among the site directors and the technicians and to have them work together to develop a program of intervention that is based on priorities—which in turn are based on an assessment of conditions at the site.

Piqué: Another typical problem is that trained professionals later leave their positions and move on to higher posts with different responsibilities—and therefore what they've learned cannot be used

in the context in which they were trained. We've experienced that in projects in China and Benin. We've had people who were trained to do a specific type of work and who later were moved to another department, so the training is lost to the original context. This is why education must be done at all levels, so that the people who decide where they go do understand the importance of their role in their position, with the knowledge gained through our collaborative project.

Agnew: There's an old adage about planting three seeds—one for the crow, one for the drought, and one for the crop. The attrition rate among trainees, through leaving their jobs, is often high. One has to have sufficient numbers of participants trained over a sustained period of time to hope that a few get through those various filters and challenges, so that you do have some who later will be influential.

Ultimately the success in countries in which we work relies on having professionals formally educated in conservation. That's difficult for us to undertake. One experiment that I've been involved with is setting up a master's degree course in China between Lanzhou University and the Dunhuang Academy, with the participation of the Courtauld Institute of Art and the GCI. To bring together the four partners and to obtain the approval of China's state administration took some years to do, but the university is on its second class of students now. The objective is to train a professional cadre of conservators, because in China, as elsewhere, professionally educated conservators are very rare birds. The long-term objective is to create a sustained program that serves all of China—not just the Dunhuang Academy. The Institute's involvement is for two three-year cycles of master's degrees. If it doesn't take after that and cannot live on its own, we would let it go.

Levin: *China, of course, is a very large country with substantial resources, and it can certainly sustain the existence of that kind of program. Is that possible in some of the other places where we work?*

Agnew: We've never tried to do it elsewhere. In some instances it could be possible, but each would require time and careful negotiation. Part of the problem—and this may reflect a problem in conservation generally in such countries—is that the intake students for the course at Lanzhou University often fail the national entrance exam. That tells us that a lot of people in China have taken on conservation work without a sufficient level of education to qualify for a national university-level degree. That's startling. We've overcome that by encouraging the Dunhuang Academy to give intensive coaching to prospective students to get them through the entrance exam and into the master's degree program.

Piqué: Conservation has become a highly scientific discipline compared to what it was a few decades ago. The level of knowledge that a conservator should ideally have is much higher than what it used to be—primarily hands-on craftsmanship knowledge of how material behaves. There is no doubt that the scientific approach is a good thing, but on the other hand, because we're shifting toward the theoretical approach, we start to see a lack of good conservators who know how to treat material in a compatible and minimal way. At the end of the day, one of the hardest parts of a conservation program is the development and implementation of a sound, long-lasting intervention to address a particular conservation problem. Hands-on conservation experience cannot be learned from a book but requires practice over a long period of time.

Agnew: But, Francesca, you have to have a person who has enough formal education and training to be able to make the decisions and then provide the right input to the technician—what the approach should be and how the intervention should be done. Conservation still suffers from its history. It has less academic credibility in universities than the long-established areas of the arts and the sciences, for example. It just doesn't have that. Nor does it attract people who could make more money in, say, computer science and similar disciplines. It's got a lot stacked against it. This is why we come back to the need for a multipronged approach that includes things like technician training, midlevel career education, and university standard programs.

Roby: A problem we face is that many people in different parts of the world who get formal university training in conservation often end up not being the ones to do the actual intervention or manual work. There is a big divide between the people who actually do manual work and the professionals who don't. A conservator has a profile that should bridge that gap—combining an academic background with manual skills and the desire to be on site.

Agnew: We can hope that the person who has professional knowledge and understanding of how to conserve and manage would be the person in charge of determining what kind of intervention should be done, and would be the person who can direct the operations of well-trained technicians in implementing those decisions.

Roby: The situation we find in Tunisia is if we have a conservator recently trained, that person may be able to make the decisions about treatment—but is not going to be the person who can actually train the technicians, by example, manually. He or she won't have the practical experience. So, ideally, yes, it would be the local conservator who does the training of the technicians. But it will take years of experience after their training before they can train others.

Levin: *Related to some of the things we just talked about is the objective of fostering networks of professionals. This is something that the GCI Education program is trying to do. Has this been a part of any of the education efforts of GCI Field Projects?*

Agnew: The objective of the Southern African Rock Art Project was to look regionally at the twelve southern African countries to develop site management plans for rock art, and to be more strategic by bringing in participants from different parts of the region to work together—with the expectation and hope that they would stay in contact with one another and share knowledge and information. The other thrust of the project has been to provide training skills at the local level, which qualifies participants to serve as guides to rock art sites. We've done training courses in the impoverished Clanwilliam area in southern South Africa for young people who have no formal training—and also in the north, in Mapungubwe, where we've trained park rangers who are generally well qualified in the natural environment but have no experience as guides for rock art sites. So it's a many-part endeavor.

Levin: *What are some of the things that we should be doing as we refine our efforts with respect to education as part of our field projects?*

Agnew: One of the things that may have been neglected is distribution of training materials on a wider basis. We have a lot of good material. In the early days of the Training Program, it was determined that each training course would have to be tailored to a particular audience. There's a lot of value in that. The downside is that much of the material has not been made accessible and is moldering on the shelf. We have a huge volume of material that could be disseminated.

Dardes: *This is a very important aim for our department. However, it requires us to make sure that we're not just disseminating odd bits that come out of our courses but that whatever we produce can be understood by future users, whether they're practitioners or other educators. We're looking at models of open source courseware and teaching materials to understand how people disseminate the products of their teaching. It's also been useful to see how some of these models foster the creation of a community of educators, where there's a lot of traffic back and forth of ideas and meaningful didactic resources.*

Agnew: I agree with that absolutely. But I do have a note of caution. I remember when we were developing the research material that came out of the Getty Seismic Adobe Project [www.getty.edu/conservation/science/seismic/], and someone said, "You know, you've written the book. Now it's as though you're walking next to a high wall and you toss the book over it. Hope One is that someone



“The people whom we train need to be the right people, people who have commitment.”

— Thomas Roby

Jonathan Bell, GCI.

Roby: We’ve made significant attempts to do that, and we’ve involved the previous trainees in the current training activities. We’ve realized, though, that there’s a certain amount of reluctance among the trainees, because some of them see their skill as what guarantees their employment. In some cases, we’ve seen a real reluctance to share their knowledge with other, younger people. But in other instances, we’ve seen trainees taking on this role. However, it doesn’t replace a lengthy formal training process. There’s quite a difference between being trained by the trainee and being trained directly by the formal instructors of the courses.

Piqué: I think we could improve training in GCI Field Projects by more effectively collaborating with colleagues with education and training experience. Once we are in the field, we are so involved with all the complex components that make up a field project—including developing intervention, documentation, and so many other logistical aspects of the project—that it’s not easy to give enough focused attention to training and education initiatives. Going back to the experience that we had in Abomey, having a colleague—Valerie Dorge—who was responsible for the training aspect of the project was helpful. It did take a bit of our time and additional planning, but in the end, the results, in terms of education and training, were definitely there to be seen. And the training material was organized to be adapted for use in other projects in French-speaking countries, such as the mosaic conservation training in Tunisia.

Roby: In most of the situations we’ve been talking about, training is one aspect of a larger project, which has its own objectives. In Tunisia, we’ve had the luxury of training being the essential scope of the project. It didn’t ever go beyond that, and in that way, it probably could and should have been within the GCI Education department. It has more in common with GCI Education activities than with GCI Field Projects.

Dardes: *Our focus in GCI Education is certainly, as we grow, to be more involved with Field Projects, in those instances where there is a defined component of training. We can assist in taking that burden off these enormously complex projects, as well as making sure that the products of our training efforts are disseminated. We’re also, by the way, looking at working more closely with GCI Science, because there’s a lot of research coming out of that department that should be disseminated through courses and workshops. Only the fact that we are still a small department has stopped us from doing more of this. It’s definitely in our sights to work with both Field Projects and Science in a more integrated way.*

on the other side will pick it up. Hope Two is that that person will read it. Hope Three is that it will be understood. And Hope Four is that the person will be able to apply the knowledge usefully.”

Dardes: *You’ve made an important point, and this is why I discourage people from just sitting down and writing didactic materials for hypothetical courses. It never works. You have to plan the course, design the materials, teach the course, and then disseminate the materials. But disseminate them with the insights gained from actually using the materials in an authentic teaching situation.*

Levin: *Tom, are there some other things besides materials that you think are important to consider in future training that is part of GCI Field Projects?*

Roby: The experience that I’ve had in Tunisia has shown me that when one is training people to actually do physical intervention on a work of art, it is a great responsibility. We’ve seen poor use of our training in some cases, but it has demonstrated that the people whom we train need to be the right people, people who have commitment—and that it’s not just a way of becoming employed. In future training activities, we should pay more attention to the choice of individuals who will be receiving the training.

In the beginning in Tunisia, we were only training people who were already employees, because that was an insurance that they would continue to work. Then, as we continued, we increasingly trained people who were not already involved in government work. Fortunately, many of those people, in the end, were hired, but the choice of the individual—and again, with the aim of choosing people who will provide an effective team of different skills—is extremely important.

Levin: *And in that process, are you also looking at people who have the skills, ability, and willingness to be conveyors of information—individuals who not only assimilate the information you’re giving them but who can, over time, turn around and convey information to their own colleagues?*



Instructor Monique Fischer discussing the condition of a photograph with course participants. *Photo: Sean Charette, GCI.*

Advancing Photograph Conservation

A New Initiative in Central, Southern, and Eastern Europe

By Sean Charette

THE FIELD OF PHOTOGRAPH CONSERVATION is characterized by a network of professionals who have built a strong community of practice, defining photograph conservation as a distinct specialization within conservation. This international community of photograph conservators is a dynamic one, as reflected in the work of professional associations such as the ICOM-CC Working Group Photographic Materials and the Photographic Materials Group of the American Institute for Conservation.

However, despite these strengths, there is a need within the field for additional trained photograph conservators to deal with an ever-expanding range of photographic materials, especially in parts of the world where formal training in the conservation of photographs is lacking. One such region consists of central, southern, and eastern Europe, whose museums, archives, and libraries are home to a rich heritage of artistic and documentary photographs. A needs assessment conducted by the Getty Conservation Institute in 2006 clearly indicated that interest in preserving this heritage is strong among conservation professionals in this region but that educational opportunities to aid in this preservation effort—particularly at the academic level—are limited. In recent years, the Northeast Document Conservation Center of Andover, Massachusetts, has offered in the region several short courses on various photograph conservation topics. As successful as these courses have been, there remains a large group of regional professionals—conservators, curators, librarians, and archivists—who are interested in acquiring additional expertise in understanding and caring for photographic heritage.

A Regional Initiative

Following the needs assessment, the GCI partnered with the Academy of Fine Art and Design (AFAD) in Bratislava, Slovakia, and the Slovak National Library in Martin to advance regional photograph conservation through an education initiative entitled Conservation of Photographs and Photograph Collections for Countries of Central, Southern, and Eastern Europe. This multiyear initiative has a number of objectives, including providing theoretical and

practical knowledge of photograph conservation through an ongoing series of summer schools and distance learning activities. It draws upon the expertise of the international community of photograph conservators to provide training and resources and to encourage the development of a new and enduring network of photograph conservation professionals in the region.

A three-year regional course entitled Fundamentals of the Conservation of Photographs is the first component of the initiative. The course combines classroom instruction with distance learning activities that extend teaching and learning beyond the confines of the classroom. In the context of the conservation of photographs course, distance learning is linked to practical workplace experience, and it incorporates a variety of teaching tools, including use of a course Web site, application of course lessons to workplace situations, and distance mentoring conducted by course instructors via the Internet.

Each year, or module, of the course begins with a two- or three-week summer school and is followed by eight months of distance learning and mentoring. During this period, participants

Course participants learning to identify photographic processes using microscopic examination. *Photo: Dusan Stulik, GCI.*



carry out capacity-building activities within their own collections, applying learning acquired during the summer school with the ongoing support of course instructors/mentors.

The seventeen course participants are conservators, archivists, and other professionals responsible for the care of photographic collections. The same core participant group is maintained throughout the course, in order to facilitate the formation of professional networks. The course instructors and mentors, established leaders in photograph conservation, use a team-teaching approach in the classroom and during distance mentoring—an approach that incorporates a variety of perspectives and allows healthy discussions to develop.

Module 1 of the Fundamentals of the Conservation of Photographs course began with a three-week summer school held at AFAD in Bratislava from July 21 to August 8, 2008, followed by the distance learning and mentoring phase of the module, which runs through April 20, 2009. Module 2 of the course will begin with a summer school in Slovakia in the summer of 2009.

Extending Learning

Extending learning beyond the classroom is a critical part of the Fundamentals of the Conservation of Photographs course. This component allows course participants to continue to develop their knowledge and practical skills in their own workplace within a structured framework of learning and guidance. Participants become comfortable making decisions and applying new skills within the context of their own collections, as well as communicating conservation concerns and ideas to their colleagues.

For example, the program of distance learning used for the first module of the course consists of one primary activity—the survey of a small collection of photographs (a personal or family collection). The survey includes a number of tasks that are carried out over the eight-month distance-learning period, with participants presenting the results of these tasks in a series of reports. The initial report describes the collection in terms of processes and parameters; the second describes the collection's condition and priorities as identified by the participant. The final report outlines a detailed conservation plan addressing such subjects as conservation treatment and preventive conservation recommendations; access to the collection and related issues of documentation and digitization; and funding sources for the collection's conservation and maintenance.

The reports are posted to the course Web site. Mentors review them and provide comments that are shared among the group, so that others may read and discuss them. The course Web site includes a discussion forum that may be used in this way or utilized for more general discussions.



GCI senior scientist and course instructor Dusan Stulik examining a photograph with a participant in the Fundamentals of the Conservation of Photographs course. Photo: Art Kaplan, GCI.

There are also less formal activities, which do not involve scheduled assignments. For example, participants are encouraged to build their own photographic study collection for teaching and reference purposes. They may request and receive guidance from course instructors and make use of analytical equipment at summer schools to fully characterize and understand these study collections. In addition, with the support of course instructors/mentors, participants are encouraged to address research questions that will advance the field (particularly important at this time of significant change in the field of photography) and to disseminate information and resources through professional activities.

The course Web site plays a crucial role in the distance-learning phase of the project and in promoting communication. In addition, it serves as a central reference point for information and documents related to the course. All of the teaching material created or compiled for the course—articles, bibliographies, handouts, and other material developed by the instructors—is maintained on the course Web site and is available for participants to read or download at any time.

Instead of a series of separate workshops, this initiative provides a learning process that participants themselves help shape through ongoing dialogue. The three-year format of the course extends learning and facilitates communication with the goal of building a network of informed, well-connected, and active conservation professionals in central, southern, and eastern Europe. This growing community of conservation professionals will, in turn, contribute to the strength of photograph conservation as a profession and help the profession meet the challenges of conserving photographic heritage.

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Specific information regarding the content and curriculum of the Fundamentals of the Conservation of Photographs course can be found at: www.getty.edu/conservation/education/cons_photo/cons_photo_course.html.



The World Heritage Site of Vat Phou, Lao People's Democratic Republic—the location of the workshop *From Risk Assessment to Conservation: Safeguarding Archaeological Complexes in the Mekong Region*. Photo: Kristin Kelly, GCI.

Sustaining Conservation Education in Southeast Asia

By Jeff Cody and Kecia Fong

DURING THE SEVENTH CENTURY—along the Mekong River in what is now the Lao People's Democratic Republic (Lao PDR)—an extensive, fortified city flourished as an important regional trading center. For its inhabitants, the natural land formations near the city signified a holy site and inspired them to build temple complexes dedicated to Hindu gods. One of the most important temples came to be known as Vat Phou.

Fourteen hundred years later, the town of Champasak is home to the World Heritage site of Vat Phou. There, in spring 2008, twenty-five young conservation professionals from Thailand, Cambodia, Vietnam, Myanmar, and the Lao PDR participated in a two-week workshop organized by the Getty Conservation Institute (GCI) with three other partners: the Lao PDR's Ministry of Information and Culture, the Lerici Foundation, and SEAMEO-SPAFA (the Southeast Asian Ministers of Education Organization Regional Centre for Archaeology and Fine Arts). Entitled *From Risk Assessment to Conservation: Safeguarding Archaeological Complexes in the Mekong Region*, the workshop was the inaugural event of the GCI's Built Heritage in Southeast Asia Conservation Education and Training Initiative.

Creating the Initiative

Although many domestic and international organizations are working in Southeast Asia, the region remains in need of more focused conservation education. In the early 2000s, the GCI decided that it wanted to complement the efforts of others in strategic ways by improving regional conservation practices and building a community of local conservation practitioners. The shape and direction of the GCI initiative developed from an assessment conducted by the GCI that identified several areas of conservation need:

- archaeological sites,
- materials conservation,
- mixed archaeological and urban contexts,
- urban development and conservation planning,
- built heritage conservation education.

The needs assessment also raised questions. Should the educational work be geared to professionals from several Asian countries (with different languages, economies, and politics), as opposed to those from an individual country? If the intended audience comes from many countries, then where, geographically, should the GCI focus its activities? How, and with whom should partnerships be forged? How should instructors from outside the region teach participants who came from within the region? What would be the duration of the GCI's contact with any one group or the duration of any individual activity? This last question of duration touched upon issues of sustainability and capacity building.

With these questions and the needs assessment in mind, GCI Education staff designed an initiative with three overlapping components:

1. field workshops for conservation professionals,
2. didactic materials for conservation education, and
3. meetings of topical interest for professionals in conservation and other related fields.

Each component is geared toward a particular audience. The field workshops, which are for practicing field professionals, are characterized by practical, problem-based learning on site. The didactic materials component is being developed collaboratively with Southeast Asian educators and practicing professionals to create region-specific case studies for use in academic and training programs. The meetings of topical interest are for professionals of diverse skills whose work impacts heritage conservation but who are not necessarily conservation professionals. Collectively these components, launched in 2008, address both formal and informal modes of learning at various stages of a professional's lifelong learning process.

The Initiative in Action

The field workshops are envisioned as a series of intensive activities that cohere around themes that vary according to the conservation challenges of a particular site. Participants represent a variety



Southeast Asian conservation professionals working as a team during a workshop field exercise. Photo: Jeff Cody, GCI.



Workshop participants assessing the state of conservation of a fallen statue, as part of a field exercise. Photo: Jeff Cody, GCI.

of skill sets, including, but not limited to, archaeology, architecture, landscape architecture, engineering, and urban planning; this diversity reflects the interdisciplinary nature of conservation and the reality of the professionals who actually perform conservation work.

The 2008 Vat Phou workshop focused on assessing a site holistically as a dynamic, interconnected place, rather than as a series of disparate, static monuments, and it emphasized the importance of understanding the site in the context of its broader geographic and social dimension. By mapping layers of value over perceived risks to the site, participants were able to begin prioritizing risks and needs. The workshop promoted a practical, value-based methodology predicated upon identifying risk and prioritizing problems so that effective solutions could be implemented. In terms of pedagogy, multiple means were used to engage the participants, especially since the language of instruction (English) posed an inevitable challenge. In addition to formal lectures, emphasis was placed on more interactive teaching methods, which included guided discussions, participant presentations, group work, diagnostic fieldwork, and field trips.

The second workshop in this series—to be held at Chiang Saen in northern Thailand—will take place in November 2009. At this workshop, the concepts and methodology taught at Vat Phou will be reinforced and applied in a location where an urban settlement is developing in the midst of a large archaeological site. Community participation in conservation decisions is likely to be an important component of the curriculum. We anticipate that a core group of participants from the Vat Phou workshop will continue with the Chiang Saen workshop; thus, ample opportunity will be provided for learning and practicing new methodologies and for promoting contact within this evolving regional community of conservation practitioners.

While lifelong learning for professionals is essential, there remains a great need for didactic materials at the academic level. This was the clarion call of the 2008 Directors' Retreat (see *Conservation*, vol. 23, no. 2), organized by the GCI, where twenty leaders

and practitioners of conservation programs in the Asia Pacific region related to built heritage gathered to discuss the gaps between the content of Asian Pacific conservation programs and the needs of the field. The GCI will take a leadership role in working with local educators and practitioners to develop region-specific case studies.

The third component focuses on nonconservation professionals whose work impacts heritage. They are often neglected but critical participants in heritage protection. Fostering constructive dialogues among several kinds of professionals was one of the key objectives of the recent forum held in Siem Reap, Cambodia, this past October. Coorganized by the GCI in conjunction with three other national and international organizations, the forum brought together forty Cambodian and foreign experts; these included developers, economists, planners, tourism officials, monks, and conservation professionals. They discussed how the rapid and often unregulated urbanization of Siem Reap can be detrimental to the historic resources of nearby Angkor Archaeological Park and its local residents. The forum's lively exchange of views underscored the importance of understanding the interrelationships between dynamic development and conservation—as opposed to seeing them solely in conflict with each other. The summary points resulting from the forum's discussions, including recommendations for action, will appear in a final report that will be sent to both APSARA (Authority for Protection and Management of Angkor and the Region of Siem Reap) and the Siem Reap provincial government.

The GCI's Southeast Asia Initiative—with its multifaceted design and diverse pedagogical approaches—seeks to engage a broad spectrum of conservation professionals. It is hoped that the three complementary components of the initiative will support learning and improved conservation practice, not just at a single point in the careers of Southeast Asian practitioners but at various stages of their professional lives.

Jeff Cody is a senior project specialist and Kecia Fong is a project specialist with GCI Education.

Cracked, Warped, and Cradled!

Training in the Structural Conservation of Panel Paintings

By Foekje Boersma and Sue Ann Chui

HOW MANY OF US PAY ATTENTION to the words *oil on panel* when reading a label next to a painting hanging in a museum? The implications of this short phrase for the preservation of the painting are unknown to most of us. Paintings conservators are an exception. For these specialists, the conservation challenges presented by paintings on wood panels are all too clear. Unfortunately, there are only a few experts worldwide who restore these works, and even fewer new specialists entering the field.

To address the pressing training needs in the structural conservation of panel paintings, the J. Paul Getty Museum, the Getty Conservation Institute, and the Getty Foundation have embarked on a multiyear project designed to increase the number of conservators in the field.

Panel Paintings

Paintings on wooden panels were common in Europe, especially in Italy and the northern European countries, up until the sixteenth century, when canvas became increasingly popular as a support. Many world-famous paintings are on panel—for example, the *Portrait of Henry VIII* by Hans Holbein the Younger. The Getty museum alone has over ninety panel paintings in its collection.



The Panel Paintings Initiative advisory committee and project team members discussing structural conservation issues of the panel painting *Madonna col Bambino* by Cimabue at the Opificio delle Pietre Dure, Florence. Photo: Foekje Boersma, GCI.

Panel supports, prepared by skilled woodworkers, were either made from a single piece of wood or constructed from a number of pieces joined together for larger paintings. In the case of paintings with complicated structures, such as polyptychs, the woodworker cooperated closely with the painter, who provided specifications for the manufacture of the support.

Wood, an organic material, continuously responds to changes in temperature and humidity. Its ability to absorb and desorb moisture from the surrounding air (thereby swelling and shrinking, respectively) makes paintings on panels susceptible to structural damage caused by climatic changes, including warping, twisting, and splitting—all of which affect the paint layer in a negative way. The worst of these processes can cause paint loss.

In most cases, after repeated cycles of swelling and shrinking in response to changes in the environment, paintings on panels are no longer flat, as originally constructed. The pervasive aesthetic notion that paintings ought to be flat (regardless of their substrates) resulted in various treatments to control the movement of wooden supports—movement that would damage the paint layer. A common way to impose flatness on a deformed panel (something that cannot in actuality be fully achieved) was to remove half or more of the thickness of the support and to attach a rigid structure, called a cradle. Probably the most extreme intervention was to remove the wooden support completely and to transfer the paint layer to canvas. In more recent times, with the growth of professional conservation approaches, less-invasive treatments have been developed that respect the original materials and construction of a painting.

The Expertise Gap

Conservation as a profession grew out of crafts with centuries of experience in manufacturing. The first generations of restorers were mostly trained in workshops as apprentices, and they had the strong hand skills necessary to make objects appear as new. With the development of the conservation profession, training and education moved from the workshop to schools and academic programs. At present, most conservation programs are based within universities.

Conservation has gained much from having been formally recognized as a profession and from its move into academic education. The involvement of the sciences has resulted in a better understanding of degradation processes and of the long-term impact of conservation treatments. But new problems have emerged that impact a specialized field like panel paintings conservation. Traditional crafts are disappearing at an alarming rate. There is less time available for developing hand skills in the course of an academic education. And opportunities for specialized internships for graduate conservators to perfect their hand skills are diminishing. With the retirement of some of the few existing experts in panel paintings conservation—and the lack of young professionals moving into this field—a gap is forming.

This problem was identified by the Getty back in 1995. A symposium, “The Structural Conservation of Panel Paintings,” held at the Getty Museum in April of that year, was successful in recording existing practices and knowledge. Since then, the published proceedings have become standard reading for the profession (they are now available online as a free download at www.getty.edu/conservation/publications/pdf_publications/books.html).

At present, however, the future preservation of panel paintings is threatened by the diminishing number of conservators with the needed expertise. For this reason, the Getty’s Panel Paintings Initiative was established. The initiative seeks to increase knowledge regarding conservation problems and solutions related to panel paintings, as well as to increase the number of expert conservators.

In order to update knowledge of the training and professional development needs of panel paintings conservators, a survey funded by the Getty Foundation is currently being carried out by Denmark’s State Museum of Art in Copenhagen, in collaboration with the School of Conservation at the Royal Danish Academy of Fine Arts; the survey should be completed by summer 2009. The results will inform development of the initiative’s educational component, which will include opportunities for postgraduate and midcareer conservators to train directly with panel paintings experts through fellowships, residencies, and workshops.

As part of this initiative, the GCI, the Getty Museum, and the Getty Foundation are hosting the symposium “Facing the Challenges of Panel Paintings Conservation: Trends, Treatments, and Training,” which will be held May 17–18, 2009, at the Getty Center in Los Angeles. The symposium will highlight recent developments in panel paintings research and conservation, as well as feature a discussion of education and training needs.

In a future phase of the project, the Getty will make several important resources available online on the Conservation section of getty.edu. These include a searchable online literature database, online publications, and translated key texts, as well as other teaching resources that will be produced for future workshops or

conservation training fellowships. These resources will be available to anyone interested in this field.

With this multifaceted project, the Getty hopes to address the expertise gap in panel paintings conservation, in order to ensure future generations of well-trained conservators in this specialized field.

Foekje Boersma was formerly a project specialist with GCI Education. Sue Ann Chui is an assistant conservator with the Getty Museum.

For more information, please visit the GCI Web site: www.getty.edu/conservation/education/panelpaintings.



Conservator George Bisacca of the Metropolitan Museum of Art, New York, demonstrating structural treatment at the Getty Center on the *Crucifixion* by Albrecht Altdorfer from the collection of the Szépművészeti Múzeum, Budapest. *Photo: Mark Leonard, Getty Museum.*



George Bisacca at the Getty Center removing the cradle from the reverse of the panel painting *Madonna and Child*, attributed to Giovanni Antonio Boltraffio, from the collection of the Szépművészeti Múzeum, Budapest. *Photo: Sue Ann Chui, Getty Museum.*



Christian Ost, dean of ICHEC Brussels Management School, is a 2008–09 GCI Conservation Guest Scholar researching “A Guide for Town Planning in Historic Cities Using Economics of Conservation Methodology.” Photo: Dennis Keeley, for the GCI.

Out of the Box and Thinking

The GCI Conservation Guest Scholar Program

By Kristin Kelly

DENIS BYRNE, AN ARCHAEOLOGIST and cultural heritage manager, came to the Getty Conservation Institute from Australia, where he worked at the Research Unit of the Cultural Heritage Division of the New South Wales National Parks and Wildlife Service. He was interested in completing work he had begun years earlier on religious values and significance of heritage places in Asia, and he set out to examine differences between countries in Asia and countries with Western traditions.

In her time at the GCI, Isabelle Vinson, editor in chief of *Museum International* at UNESCO, Paris, conducted research on international heritage and the ways in which it is affected by universal international values and global market forces. Her residency led, in part, to professional relationships that resulted in the publication of joint simultaneous issues of *Conservation*, *The GCI Newsletter* (*Conservation*, vol. 19, no. 3) and *Museum International*—both devoted to the concept and practice of partnership in heritage conservation.

Ulrich Birkmaier, conservator of paintings at the Wadsworth Atheneum Museum of Art in Hartford, Connecticut, came to the GCI to research the background and uses of Weber Academy Board, a painting support used frequently by American painter Marsden Hartley in the early twentieth century. While here, Birkmaier collaborated closely with conservators at the J. Paul Getty Museum, and made extensive use of the special collections at the Getty Research Institute; thus his Getty residency was truly cross-programmatic.

Byrne, Vinson, and Birkmaier—as well as forty-seven additional professionals—have all been conservation guest scholars in a GCI program that began in 2000. In 2008–09, the Institute is hosting its ninth group: four heritage professionals from four continents.

The Conservation Guest Scholar program was created to fill a perceived need in the conservation field, and it is one of the few opportunities for senior professionals in the broadly defined field to pursue research and innovative thinking in areas of general interest to the profession. Meant to encourage new ideas and perspectives in

conservation, with an emphasis on the visual arts (sites, buildings, and objects) and the theoretical underpinnings of the field, the program offers conservation professionals an opportunity to step away from their daily routines and responsibilities, providing them with the time and resources to research and write in their fields of expertise. The scholars—chosen from a pool of applicants by a committee of professionals from both inside and outside of the Getty—receive housing in the Getty’s scholar housing apartment complex, a monthly stipend, a workstation at the GCI, research assistance, and access to the resources of the Getty. Residence in Getty housing allows scholars interaction not only with GCI staff but also with scholars from a variety of disciplines.

The program is one of the most wide-ranging and global GCI initiatives. From its first year, it attracted more qualified applicants than could be accommodated. To date, scholars have come from every inhabited continent, and they have worked on projects ranging from scientific laboratory research to analysis of the values of archaeological sites to writing and disseminating results from long-term research projects.

By the fall of 2007, a critical mass of scholars had passed through the program, and the GCI undertook a comprehensive survey of past guest scholars to determine how the program had affected them, what they were doing now, and how the work they had done at the Institute was being communicated to the world. The GCI was also interested in learning how the program could be improved. Over 90 percent of the past scholars responded, providing impressive lists of publications and accomplishments directly related to their time spent at the GCI. Because of this input, certain small adjustments are being made to the program. It is also clear from the feedback that over its ten years, the program has had a notable impact on the conservation field.

Tom Learner—now a GCI senior scientist heading up the Institute’s modern and contemporary art research—was a 2001 guest scholar while a conservation scientist and conservator of twentieth-century paintings at Tate in London. (Five past GCI scholars have joined the Getty staff—three are at the GCI, one at the

GRI, and one at the Getty Foundation.) “My residency as a GCI scholar gave me dedicated research time, away from the day-to-day distractions of life in a museum,” Learner says. “I was able to make the most of the analytical laboratories to monitor the effects of cleaning on acrylic paints. Additionally, the scholars formed a true community, and I have remained in close contact with many of my fellow scholars.”

Aparna Tandon, then a curator and conservator at the Amar Majal Museum and Library, Jammu, Kashmir, and now a project specialist in the collections unit at ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property) in Rome, describes her experience at the GCI as “the opportunity for me to interact with top professionals and to refine my thoughts about preventive conservation as they apply to the broad and diverse cultural heritage of India.”

Gilberto Artioli, then of the University of Milan and now of the University of Padua, spent six months conceptualizing and writing a textbook on scientific methods and cultural heritage, with a goal of integrating conservation science into the curriculum of conservation programs. “The program gave me the valuable time to think and to launch this cross-disciplinary publication project,” he says. “The GCI provided an exceptional and diversified forum for initial brainstorming.” Artioli’s book, with contributions by others, will be published by Oxford University Press.

Olga Pizano, a cultural heritage consultant from Colombia who was part of the GCI’s first group of guest scholars, notes that her time at the Getty gave her “the opportunity to further understand the role of the international protection instruments in the legislation and management of cultural heritage in Colombia. Since then I have developed a critical position in relation to the conventions and charters, and I have shared it with students and colleagues in Colombia and other countries. The results of my work have been published in several books and magazines.”

The application deadline for consideration for the academic year 2009–10 was November 1, 2008. Received applications are being distributed to the review committee, and it is clear, again, from their quality and quantity that the program is filling a need in the conservation field. As a major commitment of the GCI and its Education department, the Conservation Guest Scholar program will continue to assist professionals in advancing the practice of conservation by affording them the time and resources to create and disseminate important research.

Kristin Kelly was formerly assistant director of the GCI Dissemination and Research Resources department.



Maria Barbara Bertini (left), a 2004–05 GCI Conservation Guest Scholar, conducting research for her work on “Preventive Conservation and Emergency Planning,” with assistance from GCI Information Center staff member Valerie Greathouse. *Photo: Dennis Keeley, for the GCI.*



Maria Isabel Kanan, a 2001–02 Conservation Guest Scholar, mixing mortar in the GCI laboratories as part of her research on a “Technical Lime Manual Designed for the Needs of Architectural Conservation in Brazil.” *Photo: Dennis Keeley, for the GCI.*

GCI News



A rock painting of a giraffe from Machete rock shelter, Mapungubwe National Park, South Africa. *Photo: Elizabeth Werden, GCI.*

Sixth Rock Art Workshop Held

From August 18 to September 4, 2008, the GCI held its sixth rock art workshop for provincial and national parks staff at Mapungubwe National Park, in conjunction with the Institute's Southern African Rock Art Project (SARAP). SARAP—a GCI collaboration with South African National Parks, the South African Heritage Resources Agency, and the Rock Art Research Institute of the University of Witwatersrand—is aimed at creating momentum for rock art preservation, conservation, accessibility, and management in one of the world's great repositories of rock art: the Southern Africa subcontinent. The region includes nations such as Tanzania, Zambia, South Africa, Zimbabwe, Botswana, and Namibia (see *Conservation*, vol. 21, no. 3).

The workshop's objectives included the creation of new visitation and management plans for rock art sites within the park and an upgrading of existing plans in preparation for an enlarged transfrontier park that encompasses adjacent areas in Botswana and Zimbabwe. The workshop was attended by twelve participants from South Africa, Zambia, Zimbabwe, and Botswana.

Since 2005 the GCI has been holding workshops through SARAP with the objectives of offering opportunities for capacity building to Southern African heritage professionals in rock art site management, conservation, interpretation, presentation, and specialized tourist guiding; strengthening contacts and creating a community of practice among rock art professionals in the region; creating training materials on rock art site management; and developing standardized methods for recording and monitoring rock art sites. Through these training activities, participants have also developed management plans and proposals for visitor interpretation and presentation for rock art sites at Mapungubwe National Park and Cederberg Wilderness Area, both World Heritage Sites in South Africa.

For further information on the Southern African Rock Art Project, visit the Getty Web site at www.getty.edu/conservation/field_projects/sarap/.

TIEM Course Completed

In October 2008, the second Teamwork for Integrated Emergency Management (TIEM) course was completed. This course, which focused on Southeastern Europe (SEE), is a collaboration of the GCI, ICCROM (the International Centre for the Study of the Preservation and Restoration of Cultural Property), and ICOM (the International Council of Museums). As part of ICOM's Museums Emergency Program (MEP), this education initiative addressed the safeguarding of museums from the effects of natural and human-caused disasters (see *Conservation*, vol. 19, no. 2).

The three-phase course began in November 2007 with a two-week introductory workshop (phase one) in the World Heritage Site of Ohrid, in the Former Yugoslav Republic of Macedonia. Professionals from nine southeastern European countries participated in the workshop, where they

were introduced to TIEM concepts, including disaster risk assessment, disaster mitigation, emergency preparedness and response, recovery and rehabilitation, and the writing of an emergency plan.

At the end of the workshop, participants from each institution prepared an action plan to guide the practical implementation of integrated emergency management in their institutions.

The course's second phase occurred over the ensuing nine months, while the course participants worked in their own institutions. During this period, they submitted monthly reports to instructors describing their progress. Instructors functioned as mentors, providing constructive feedback and moral support. During this mentoring phase, all museums created an emergency planning committee and assigned staff members to emergency response teams—a fundamental step in

Participants in the Teamwork for Integrated Emergency Management—Southeastern Europe course gather for a final meeting in October 2008. Photo: Foekje Boersma, GCI.



O'Keeffe Watercolors Analyzed

implementing a TIEM approach in emergency preparedness. The museums also contacted their local emergency response units to establish the chain of command in preparation for an emergency.

In October the group reconvened in Croatia for a final meeting (phase three), which was organized with the generous support of ICOM and the UNESCO Regional Bureau for Science and Culture in Europe (BRESCE) in Venice. The meeting took place at the Peasants' Revolt Museum in the Manor House in Gornja Stubica, part of the regional museum Muzeji Hrvatskog zagorja. Its objectives were to review the museums' action plans and implementation during the distance mentoring phase; to share achievements and challenges encountered in implementation; to share further information and knowledge in key areas; to identify tools, procedures and/or information generated by the participants that could be widely disseminated within and beyond the SEE region; to discuss networking challenges; and to devise future strategies for TIEM-SEE.

The meeting included a visit to the Old Village Museum of Hrvatsko Zagorje, Croatia, where the group participated in an unannounced emergency exercise. A simulated fire in one of the historic houses was effectively addressed by the local fire brigade and by museum staff, who demonstrated that the implementation of TIEM in their organization had prepared them to respond successfully to this emergency.

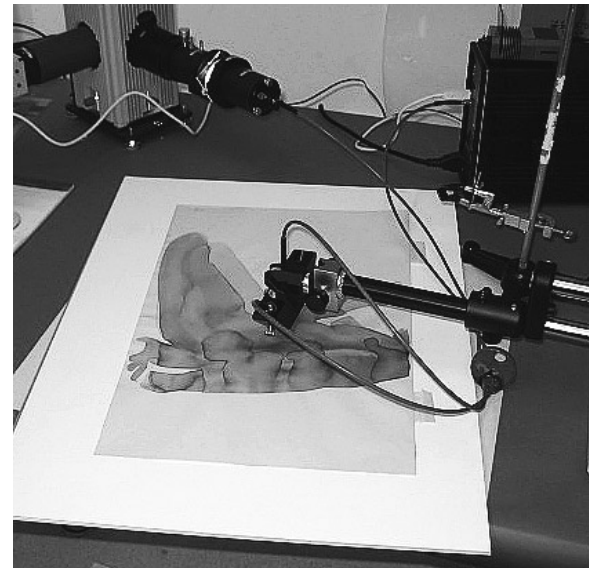
This second MEP-TIEM course demonstrated that the TIEM methodology can be effectively transferred to another region, provided that region-specific risks are taken into consideration. The project partners hope that the TIEM courses will build sustainable emergency preparedness in each region. To this end, participants from the TIEM-SEE course came up with several ideas to foster their new relationships with other institutions, and they worked together to develop a strategy for sustaining the regional network beyond the course.

For more information on Teamwork for Integrated Emergency Management, visit the Getty Web site at www.getty.edu/conservation/education/teamwork/.

In conjunction with the Getty Conservation Institute's Museum Lighting Research (MLR) project, eleven watercolors from the Georgia O'Keeffe Museum in Santa Fe, New Mexico, arrived at the Getty Center in November 2008 for microfading assessment. The MLR project seeks to reduce the damage to works of art on paper caused by museum lighting through the reevaluation of current illumination guidelines and the testing and design of new lighting. The O'Keeffe Museum was selected as the demonstration site for the implementation of lighting filters to reduce the rate of color fading in light-sensitive objects. The filters were designed under joint research with Carl W. Dirk of the University of Texas at El Paso, a partner in the MLR project. This demonstration is coupled with light sensitivity assessment of selected artifacts from the O'Keeffe Museum's collection, including the eleven watercolors brought to the Getty Center.

Georgia O'Keeffe painted with watercolors her entire life but focused on this medium during two particular phases: between 1916 and 1918, prior to moving to New York at Alfred Stieglitz's invitation; and between 1976 and 1979 when, with

A microfader probe positioned over a section of a watercolor by Georgia O'Keeffe. *Photo: Dennis Keeley, for the GCI.*



Jim Druzik, GCI senior scientist (center), and Dale Kronkright (right), head of conservation at the Georgia O'Keeffe Museum, carrying out microfading assessments on O'Keeffe watercolors, with the assistance of GCI consultant Christel Pesme (left). *Photo: Dennis Keeley, for the GCI.*



Advanced Analytical Research in Photography: Henri Cartier-Bresson

failing eyesight, she returned to complete abstraction and compositional minimalism. The O’Keeffe Museum owns almost half of her total production of watercolors. Kept in her personal collection and seldom displayed, the works are in near-perfect condition.

A major element of the O’Keeffe Museum’s institutional lighting and exhibition policy is to assess the light sensitivity of these watercolors using current microfading techniques. At the Getty Center, GCI staff carried out microfading testing and analysis of colorants using Raman spectroscopy and X-ray fluorescence spectroscopy to complement the microfading investigation. Working for two weeks, staff from GCI Science—including Jim Druzik, Catherine Schmidt, Michel Bouchard, Christel Pesme, and Herant Khanjian—as well as Dale Kronkright, head of conservation at the O’Keeffe Museum, successfully completed work on ten watercolors dating from 1916 to 1918 and one watercolor from the 1970s.

The most significant outcome of this investigation is the way in which assumptions about the composition and sensitivity of these works were challenged—expectations about which colors were sensitive and which were not proved to be incorrect for most watercolors upon examination. The combined use of microfading testing and analytical spectroscopy gave the investigators information on the regions most sensitive to change and set the stage for development of a long-term monitoring policy for these works that will target resources where they can be of most benefit.

The goal of the O’Keeffe Museum is to carry out this work on all one hundred watercolors in its collection; it also intends to institute a broader plan to improve exhibition lighting filtration.

For more information on the Museum Lighting Research project, visit the Getty Web site at www.getty.edu/conservation/science/lighting/.

In 2001 the GCI launched a large research project, Research on the Conservation of Photographs, to advance techniques for identifying all major and significant variants of photographic processes from the chemical-photography era—a research area of critical importance to preserving the world’s photographic heritage (see *Conservation*, vol. 17, no. 1).

Over the course of several years, GCI scientists analyzed thousands of nineteenth- and twentieth-century photographs using nondestructive and noncontact X-ray fluorescence spectrometry (XRF). This analytical research has shown that the baryta layer of most black-and-white photographic papers contains chemical elements of barium and strontium. The concentration of these elements reflects the sources of raw materials and the technology of photographic paper production, which varied by manufacturer and from year to year. GCI scientists have determined that the internal chemical composition of most common twentieth-

Anne Cartier-Bresson and Agnès Sire, Henri Cartier-Bresson Foundation director, selecting photographs for analysis. Photo: Dusan Stulik, GCI.



X-ray fluorescence analysis of Henri Cartier-Bresson’s iconic photograph *Behind the Gare Saint-Lazare*. Photo: Dusan Stulik, GCI.

century black-and-white photographs varies enough to allow researchers to establish a work’s provenance and to authenticate photographs.

With this knowledge, the GCI’s scientific research has focused on development of an objective, scientifically based methodology for establishing provenance and authenticating twentieth-century black-and-white photographs. Now in its implementation stage, this new methodology was thoroughly tested and recently applied in a large international, collaborative, and multidisciplinary research project focused on the photographic work of twentieth-century photographer Henri Cartier-Bresson. The results of the project were presented at the centennial Henri Cartier-Bresson symposium, “Colloque Revoir Henri Cartier-Bresson,” held in November 2008 at the Musée du Petit Palais, Paris, as part of the 2008 Paris Photo fair.

The GCI project team worked closely with French photograph conservators from the Atelier de Restauration et de Conservation des Photographies de la Ville de Paris, art historians from the Henri Cartier-Bresson Foundation, students of the Institut National du Patrimoine, and photograph conservators and curators from several museums in Paris. Together they analyzed a large number of Henri Cartier-Bresson photographic prints dated from 1929 to 2004, when Cartier-Bresson or his printers produced the iconic photographs that are now in the collections of many important museums around the world.

This collaborative project represents the first systematic, large-scale application of this new methodology to the work of a single photographer. It illustrates the way elemental analysis of photographs and the resulting database of analytical results can be used to solve important provenance and authentication issues. The project also shows the significant benefits of applying conservation science methodologies to art-historical issues, as well as the advantages of close collaboration and idea exchanges among conservation scientists, conservators, and art historians.

For further information on the Research on the Conservation of Photographs project, visit the Getty Web site at www.getty.edu/conservation/science/photocon/.

Survey Report Published

In December 2008, the Getty Conservation Institute published *The Los Angeles Historic Resource Survey Report: A Framework for a Citywide Historic Resource Survey*. It is available online in PDF format on the Getty Web site at www.getty.edu/conservation/publications/pdf_publications/lahrs_report.pdf.

This report is the culmination of the GCI's Los Angeles Historic Resource Survey project. In 2002 the GCI began working with the City of Los Angeles on a comprehensive program of research into historic resource survey methods and best practices, as well as the myriad uses of survey data (see *Conservation*, vol. 20, no. 3). The report provides a flexible framework that the city is using to design and conduct the country's most ambitious citywide historic resource survey to date.

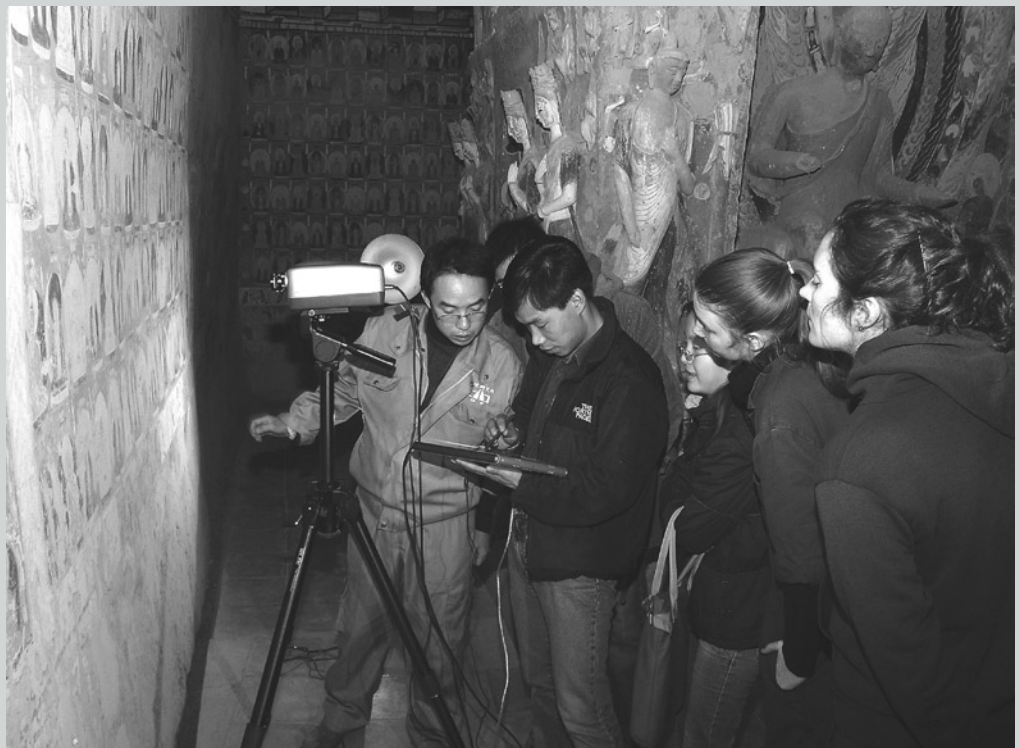
Since late 2006, the City of Los Angeles's Office of Historic Resources—with technical, advisory, and financial support from the GCI and the Getty Foundation—has taken the lead in developing the survey, which has been named SurveyLA. With the launch of three pilot surveys in December 2008 and January 2009, the project is in the final stages of its initiation phase. The pilot surveys will test systems and methods developed during this phase, including a citywide historic context statement; a survey database and field guide to survey evaluation; field equipment; a public participation and outreach program; and methods of reviewing and approving survey findings. The three-year implementation phase, during which citywide field surveys will be conducted and data will be recorded, will commence in 2009.

While the citywide survey framework and methods presented in the GCI report were developed for the City of Los Angeles, it will be valuable to others interested in surveys who may be undertaking comparable work.

To learn more about the GCI's Los Angeles Historic Resource Survey Project, visit the Getty Web site at www.getty.edu/conservation/field_projects/lasurvey/.

Further information on SurveyLA can be found on the Los Angeles Department of City Planning Office of Historic Resources Web site at www.surveyla.org.

Wall Paintings Master's Program Continued



Chinese and Courtauld students receiving training in noninvasive examination methods using MUSIS, a multispectral imaging camera, to investigate the wall paintings in Cave 260 at the Mogao Grottoes. Photo: Stephen Rickerby, for the GCI.

The GCI is continuing its successful collaboration with the Dunhuang Academy in China, the Courtauld Institute of Art in London, and China's Lanzhou University on a three-year master's degree course in wall paintings conservation held at Lanzhou University, Gansu Province, China. Last fall, a second class of nine master's degree candidates was admitted to the program, which includes instruction from GCI, Lanzhou University, Dunhuang Academy, and Courtauld staff. The inaugural class of students graduated from the program in spring 2007.

China has considerable teaching resources in the sciences and other related disciplines but has not yet offered a degree program in wall paintings conservation at the graduate level. Building on the Dunhuang Academy-GCI project for the conservation of the wall paintings in Cave 85 at the Mogao Grottoes (see *Conservation*, vol. 19, no. 3), the master's degree course in wall paintings conservation includes teaching on documentation methods, investigation of original techniques, causes of deterioration, and treatment approaches. The program provides an integrated approach to conservation education in which theoretical teaching is applied in a closely supervised context that encourages the development of individual skills, as well as critical judgment and decision making.

As part of the master's degree course, fieldwork is being undertaken in Cave 260, an early sixth-century (Northern Wei Dynasty) cave at

Mogao that presents a wide range of conservation problems typical of the site but different from those found in Cave 85. The work in Cave 260 provides an important link between theoretical teaching and practical application at a wall paintings site.

Training is an important component of the GCI's mission in China, and it has been incorporated into project work throughout the Institute's twenty years of involvement with the Dunhuang Academy at the Mogao Grottoes. The GCI and Dunhuang Academy have worked together on a number of site-wide issues, such as the problem of structural instability of some of the caves and sand migration; site management with the drafting of a master plan for the site; an eight-year project to conserve the wall paintings in Cave 85; and, most recently, an ambitious visitor management and visitor capacity study and plan.

For more information on the collaborative work of the GCI and the Dunhuang Academy to conserve and manage the wall paintings at the Mogao Grottoes, visit the Getty Web site at www.getty.edu/conservation/field_projects/mogao/.

Panel Paintings Symposium to Be Held

The Getty Conservation Institute, the J. Paul Getty Museum, and the Getty Foundation are pleased to announce the symposium “Facing the Challenges of Panel Paintings Conservation: Trends, Treatments, and Training,” to be held May 17 and 18, 2009, at the Getty Center in Los Angeles.

This two-day event will highlight recent developments in panel paintings research and conservation strategies, ranging from specific treatment projects to related exhibition issues, and will include discussion of education and training needs. Symposium speakers and contributors have been invited from around the world and include specialists in the structural treatment of panel paintings, as well as curators, scientists, and conservation specialists in related fields.

The symposium is part of the broader multiyear Panel Paintings Initiative (see p. 20) recently launched by the GCI, the Getty Foundation, and the Getty Museum to address the need for training conservators in the structural conservation of panel paintings and to advance best-treatment practices in collections around the world (see *Conservation*, vol. 23, no. 2). Guided by an international advisory group, the initiative will include an assessment of training needs and opportunities, a Web-based resource for sharing teaching and reference materials, and the development of training opportunities for conservators dealing with the structural stabilization of panel paintings. The initiative builds on a previous symposium on this topic organized by the Getty Museum and the GCI in 1995.

For registration information, please visit the Getty Web site at www.getty.edu/conservation/education/panelpaintings/panelpaintings_component1.html.



Lady Playing a Lute by Bartolomeo Veneto and Workshop, about 1530, oil on panel, from the J. Paul Getty Museum.

Injection Grouts Workshop to Be Held

On May 18–19, 2009, the Getty Conservation Institute will hold a one-and-a-half-day workshop on injection grouts for the conservation of architectural surfaces. The workshop is planned to coincide with the annual meeting of the American Institute for Conservation of Historic and Artistic Works (AIC) being held in Los Angeles. The aim of the workshop is to provide an overview of the characteristics, properties, and uses of injection grouts for the conservation of architectural surfaces—including plasters, wall paintings, and mosaics—focusing on the desirable properties and parameters for use in conservation. Topics to be covered include basic components of grouts, laboratory testing, selection of grouts, and practical application of tests in the field.

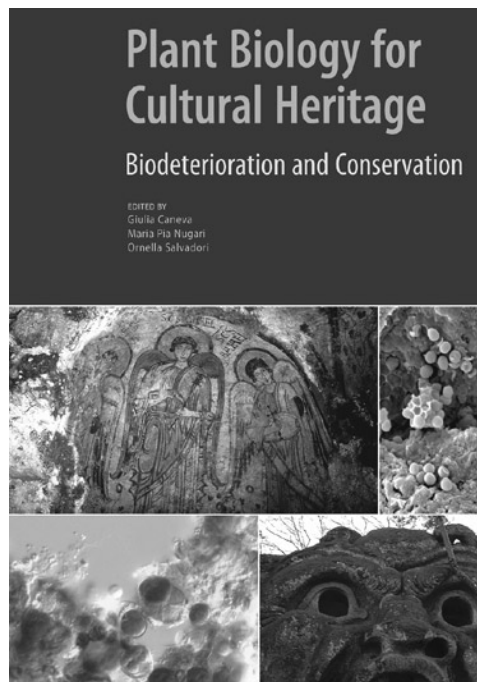
Lectures and laboratory components with hands-on demonstrations and practical exercises will be led by scientists and conservators involved in the GCI project, entitled Injection Grouts for the Conservation of Architectural Surfaces: Research and Evaluation. These include Giacomo Chiari, GCI chief scientist; Beril Bicer-Simsir, GCI assistant scientist; David Carson, GCI laboratory manager; Leslie Rainer, conservator and GCI senior project specialist; and Hande Cesmeli, conservator and GCI graduate intern.

The workshop will be held at the Getty Center in Los Angeles in the Building Materials Laboratory of the Getty Conservation Institute.

For further information regarding the GCI's Injection Grouts for the Conservation of Architectural Surfaces: Research and Evaluation project, visit the Getty Web site at www.getty.edu/conservation/field_projects/grouts/.

Plant Biology for Cultural Heritage Biodeterioration and Conservation

Edited by Giulia Caneva, Maria Pia Nugari, and Ornella Salvadori



This book brings together wide-ranging scientific contributions from the field of plant biology relating to the biodeterioration and conservation of art, architecture, and archaeological sites around the world.

Plant Biology for Cultural Heritage presents the work of dozens of scientists who have studied problems presented by the biological degradation of cultural heritage, tackling both general topics (mechanisms of biodeterioration, correlation between biodeterioration and environment, and destructive organisms) and specific ones (problems presented by different materials, various environmental and climatic conditions, and diverse geographic settings). The book also discusses solutions for the prevention and control of deterioration, including appropriate diagnostic techniques.

Giulia Caneva is professor of botany at the Università degli Studi Roma Tre. Maria Pia Nugari is director-biologist at the Istituto Centrale del Restauro in Rome and adjunct professor at the Università della Tuscia (VT). Ornella Salvadori is director of the scientific laboratory of the Soprintendenza Speciale per il Polo Museale Veneziano.

400 pages

169 color and 107 b/w illustrations,

140 drawings, charts, and graphs

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To order online, please visit the Getty Web site at www.getty.edu/bookstore/titles/plant.html.

RETURN YOUR SUBSCRIPTION RENEWAL FORM!

Earlier this year by letter, we informed subscribers of *Conservation*, *The GCI Newsletter* of changes coming to the publication. These include a new design and a new name—*Conservation Perspectives: The GCI Newsletter*.

As noted in our letter, we are taking advantage of these changes to update our subscription database. For that reason, we asked subscribers to complete an enclosed subscription renewal form in order to continue receiving the newsletter. A postage-paid envelope was provided.

The newsletter continues to be free to subscribers. However, if you do not renew, the next issue—to be published in October—will be the last one that you receive.

If you have not already done so, please return your subscription renewal form as soon as possible. If you have misplaced your renewal form, you can resubscribe online at www.getty.edu/conservation/subscribe/.

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GCI Bulletin Now Available

The Getty Conservation Institute now publishes the *GCI Bulletin*, a bimonthly electronic bulletin designed to provide our colleagues in the conservation field with greater access to up-to-date information on GCI programs and activities through brief updates on projects, conferences, courses, and publications, with links to more detailed information. Visit the Getty Web site at www.getty.edu/conservation and click on *GCI Bulletin* to sign up today.



In This Issue:

- Conservation Issues of Modern and Contemporary Art
- Herculaneum Project
- Panel Painting Symposium—Register Now
- Workshop on Injection Grouts—Register Now
- Conservation Thesaurus
- Sustainable Climate Management Strategies
- Changes to *Conservation*, *The GCI Newsletter*
- Free PDF Publications
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PROJECTS AND ACTIVITIES

Conservation Issues of Modern and Contemporary Art

The Conservation Issues of Modern and Contemporary Art (CIMCA) report is now available online. This document is the main outcome from an experts meeting held at the MoMA in June 2008, at which the complex conservation issues posed by modern and contemporary art were discussed. The report highlights responses that the conservation profession could take to address these issues, including coordinated research projects, improved communication strategies, and the modification of training and education programs.

Read the CIMCA report online.

Herculaneum Project

The Herculaneum Project, a collaboration between the GCI and the Herculaneum Conservation Project (HCP), aims to provide scientific support through analytical investigations that address specific conservation problems at the ancient Roman site of Herculaneum in Italy. The Herculaneum Project falls within the scope of the larger HCP, which is sponsored by the Packard Humanities Institute, and is conducted in collaboration with the Soprintendenza Speciale per i beni Archeologici di Napoli e Pompei, under the management of the British School in Rome.



Meeting participants at the Museum of Modern Art, New York. Photo: Gary Mattison



GCI scientist using laser speckle interferometry to detect areas of detachment in wall paintings at the site of Herculaneum. Photo: Giacomo Chiari

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