AIC NEWS

September 2016

Vol. 41, No. 5

AIC

AMERICAN INSTITUTE FOR CONSERVATION OF HISTORIC AND ARTISTIC WORKS

Inside

Taking Time to Vent: Understanding Extraction and Exhaust

By Kerith Koss Schrager and William Jarema, PE, H&S Committee

Whether you are looking for a portable extractor for your home studio or to install or upgrade a hood in your institutional conservation laboratory, understanding the fundamentals of ventilation and airborne contaminant extraction is crucial to obtaining the most appropriate equipment, installing it in the most effective configuration, and understanding how to use it.

While ventilation and extraction systems for conservation laboratories should always be designed by a professional design team that includes both a mechanical engineer and industrial hygienist, a good understanding of general ventilation principles and exhaust options gives the conservator the tools needed to ask the right questions and provides the information required to get the best design for his or her needs.

The first step in safe ventilation practice is analyzing the work space and work flow to understand the processes and hazards involved. For conservators, variable exposure durations, frequency, and types of chemical or physical agents used in a complex array of tasks and situations complicates the assessment of risk for "normal" work situations. All of these factors are considerations in selecting equipment that can best manage the type of hazardous materials and processes intended for the space. *(See box 1: Understanding Exposure Limits)*

Unless the building heating, ventilating, and air conditioning (HVAC) system was specifically designed for a particular conservation laboratory, it will (most likely) only exhaust a small percentage of the air removed from any individual space. The remainder of the air is returned to the HVAC unit where it is filtered and conditioned, and it is then returned to the space. In this standard HVAC scenario, the ventilation system does not remove the contaminants, it simply re-distributes them.

Conservators may find themselves relying on pre-existing building ventilation systems, window fans, open doors and windows, ceiling fans, and air-conditioners to circulate and remove airborne contaminants without realizing these may not provide adequate ventilation, oftentimes using smell or sight to determine the effectiveness of contaminant removal.

In the absence of carefully designed ventilation and exhaust systems, chemical vapors can collect at either ceiling or floor level (depending on vapor density) and fine particulates can settle on surfaces or remain suspended in air, causing risk for long-term exposure and creating the potential for fire hazard. In addition, simple extraction of the hazard (e.g. removing or containing the contaminant with a portable "fume" extractor) does not have the same effect as a properly designed ventilation system, because by itself, local extraction is rarely, if ever, 100% effective. Also note that wearing a respirator will only protect the user and should not take the place of properly extracting or diluting a contaminant within an enclosed area. For more information on the use of a respirator, see "A Conservator's Guide to Respiratory Protection" at http://www.conservation-wiki.com/wiki/Health_%26_Safety:_A_Conservator%27s_Guide_to_Respiratory_Protection

Taking Time to Vent *continues on page 3*

Call for Papers Extended

AIC's 45th Annual Meeting, Chicago, IL, USA, May 28 - June 1, 2017, will have the theme "Treatment 2017: Innovation in Conservation and Collection Care."

Submit your abstracts online by **September 23, 2016**, at www.conservation-us.org/abstracts.

AIC NEWS

AIC News (ISSN 1060-3247) is published bi-monthly by the American Institute for Conservation of Historic & Artistic Works, 1156 15th Street, NW, Ste. 320, Washington, D.C. 20005; 202-452–9545; Fax: 202-452–9328;
info@conservation-us.org
www.conservation-us.org

Send address changes to:
AIC News
1156 15th Street, NW, Suite 320
Washington, D.C. 20005

or: membership@conservation-us.org

Opinions expressed in *AIC News* are those of the contributors and not official statements of AIC. Responsibility for the materials/methods described herein rests solely with the contributors.

Deadline for November editorial submissions (bnaugle@conservation-us.org): October 1, 2016.
We reserve the right to edit for brevity and clarity.

ADVERTISING
AIC accepts position-available ads only from equal opportunity employers. All position ads must conform to the standards for equal opportunity employment. Internships and Fellowships, Positions Available, and Classified Ads are placed at no cost. Display ad pricing: half page $255; full page $395. Deadlines for advertising copy/materials are: February 10, April 10, June 10, August 10, October 10, and December 10. All ads should be submitted to AIC at Advertise@conservation-us.org.

AIC NEWS STAFF
Lisa Goldberg, Editor
Eryl P. Wentworth, Managing Editor
James Martin, Editor, New Materials & Research
Sheila Cummins, Editor, New Publications
Bonnie Naugle, Production Editor
Katelin Lee, Marketing Associate
Eric Pourchot, Institutional Advancement Director

From the Executive Director

NEW MEMBER MARKS

If you are a Professional Associate or Fellow of AIC, you will have already heard about the new "marks" or logos that have been created for your use. These marks help to clarify the relationship between peer-reviewed members and AIC and serve to convey your peer-reviewed status to clients and colleagues. A number of members have already happily incorporated the mark that indicates their status on their website. If you, as a PA or Fellow, have not yet downloaded the mark appropriate for your use, go to www.conservation-us.org/marks. Be sure to follow the guidelines available there. It's important that the mark is associated with you—an AIC member in good standing who has earned the peer-reviewed designation!

Sadly, too many well-qualified members have not yet applied for Professional Associate or Fellow status. Plan to carve out a bit of time in your busy schedule to gain the recognition your training and experience deserve. Talk to colleagues who have already achieved a peer-reviewed designation or contact Ryan Winfield at AIC (rwinfield@conservation-us.org), and be sure to learn how to apply at www.conservation-us.org/designation. The benefits are many, but to name just one, only Professional Associates and Fellows are eligible to apply for FAIC individual professional development scholarships. Why miss out on an opportunity to be awarded support to further advance your skills and knowledge?

AIC MEMBER DIRECTORY

Many of you have let us know how much you miss the printed AIC Member Directory. I certainly do! This fall, a print-on-demand version will be available for purchase in our store. Of course, the free online version will continue to be available on our website. Be sure that your colleagues can easily locate you—online or in print—by keeping your profile information up to date! (See page 11 for more information.)

RENEW YOUR AIC MEMBERSHIP

Fall is here and it's time to think about your 2017 membership with AIC. Take advantage of all the benefits of membership, be an active member, and renew early. My thanks to you all!

—Eryl P. Wentworth, Executive Director, ewentworth@conservation-us.org

Box 1. UNDERSTANDING EXPOSURE LIMITS

Understanding safe exposure limits for the chemicals you are using is central to selecting and designing an appropriate ventilation system. At a minimum, you want to maintain exposure levels that meet federal exposure limits, but you should always strive to achieve the lowest possible exposure.

The following definitions refer to standards used to determine exposure limits:

- **Safety Data Sheet (SDS):** A document that contains information on the potential health effects of exposure to chemicals, or other potentially dangerous substances, and on safe working procedures when handling chemical products.
- **Exposure Values:** The two sets of time weighted standards for exposure values are Threshold Limit Value (TLV) and Permissible Exposure Limit (PEL). These values are set for individual chemicals, not mixtures, and for an average person. These standards cannot be used for highly irritating or immediate toxicity chemicals; short term exposure limits (STEL) and/or ceiling threshold limit values (cTLVs) should be used instead. Note that TLVs and PELs are not available for most chemicals; lack of exposure limits does not indicate that a chemical is safe, just that it may not have undergone review.
- **Time Weighted Average (TWA):** An average exposure of a hazardous material over an eight-hour period.
- **Threshold Limit Value (TLV):** A consensus standard developed by the American Conference of Governmental Industrial Hygienists (ACGIH) is a level to which it is believed a worker can be exposed day after day for a working lifetime without adverse effects. These values are generally more stringent than PELs because they are based on health factors and are revised regularly. However, they are only recommendations and have no legal standing. Values (if available) are now required to be included in Section 8 of the SDS or may be found in other published sources, including OSHA's website and for purchase through the ACGIH.
- **Permissible Exposure Limit (PEL):** The maximum amount or concentration of a chemical that a worker may be exposed to under Occupational Safety and Health Administration (OSHA) regulations. These standards are the law and can be enforced; however, they are based on old TLV values and do not take into consideration certain health effects. PELs can be found on the chemical's SDS or other published sources including OSHA's website.
- **Short Term Exposure Limits (STEL):** An average exposure of a hazardous material over a 15 minute period.
- **Ceiling Threshold Limit Value (cTLV):** Concentrations which should never, even momentarily, be exceeded.
- **Odor Threshold:** The lowest concentration of a certain odor compound that is perceivable by the human sense of smell.

Before considering the type of ventilation and extraction you need, assess:

- What chemicals are you using or what particulates are you producing? Are the contaminants lighter or heavier than air?
- Are there any explosion or fire hazards created? Will the ventilation system you want work for those hazards?
- Are you using other prudent health and safety practices to control exposure?
- Could you substitute hazardous materials with less toxic alternatives?
- Can you change your working habits, location, and/or procedures to reduce the exposure risks or contaminants produced?
- Will your ventilation/extraction protect you AND your coworkers, other building occupants, family members, and pets?

Going with the Flow: Basic Ventilation Theory

Basic airflow principles will help in designing your ventilation and extraction systems. In the setup of any ventilation system, consider the contaminated air and its movement (in, out and around) in relation to the user. The hazard should always be drawn away from the breathing zone and toward the exhaust; the conservator's head should be exposed to a continuous stream of clean air. Where you position your intake air and exhaust air with relation to the work projects is crucial; your hazardous materials work should always be conducted as close as possible to the exhaust inlet.

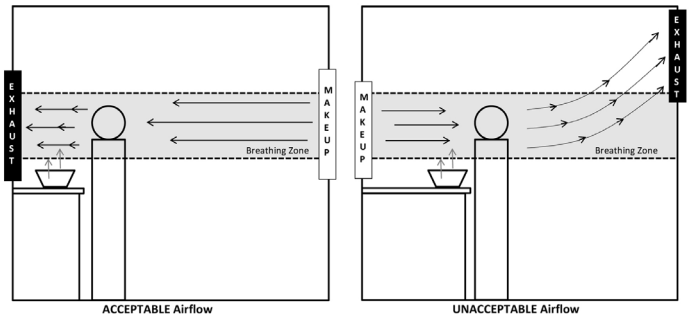

Figure 1: Acceptable and unacceptable direction of airflow when working with airborne contaminants. The quality of the air flow (both inlet/makeup and exhaust) is dependent on a variety of factors including placement of inlet and outlets, fans, and ductwork. Examples can be found in figure 2-1 of the *ACGIH Industrial Ventilation: A Manual of Recommended Practice.*

Think about not only how to get contaminated air out of the work area, but also where the air is being exhausted *to*. Always vent to the outside, but consider what is outside the exhaust vent in order to avoid recirculating contaminants back into your own or a neighbor's space.

- If the extracted air is not filtered or diluted, whoever or whatever is outside your exhaust is directly exposed to the hazards that you are removing from your workspace. This could include people walking outside on a sidewalk, your family in the yard, your neighbors, or your neighbors' pets. If your exhaust is adjacent to an intake, you could

inadvertently be contaminating their space or your own.
- If you are exhausting out a window be aware of other operable, adjacent windows (both up, down, or sideways).
- If your contaminants are heavier than air, make sure the outlet is not located over or in an area that would let it pool, such as an exterior stairway down to basement, or a yard enclosed with a stone knee wall.
- If your contaminants are lighter than air locate the outlet high – above breathing zones.
- If you are using extremely toxic or corrosive materials such as carcinogens or strong acids, they should never be directly exhausted into the environment.

Exhausting air out means it must be coming in from somewhere; you will want to control where that air is coming from, because the air you are drawing into your studio will be contaminated with anything in the areas outside. Additionally, if you do not provide the appropriately sized air inlets, air will be drawn from uncontrolled locations and may counteract your efforts to create a clean breathing zone. *(See box 2: Positive vs. Negative Pressure)*

Air flow should be slow, smooth, and steady; any kind of air resistance (or friction) should be minimized; turbulence, whether from cross drafts or air moving through ventilation systems, should be eliminated to ensure the contaminated area is effectively removed without spreading the hazard or contaminant.

You can check the airflow in a room or the efficacy of your exhaust by following bubbles or a smoke trail using incense, matches, or other smoke-generating cartridges or tubes that can be purchased through laboratory supply stores. Check to see if the smoke is drawn into the studio or the rest of the building. You may want to observe air flow with your ventilation both on and off to make sure contaminants are not being drawn from your work space when you are not working.

Box 2. POSITIVE vs. NEGATIVE PRESSURE

Air will flow from areas of positive pressure to negative pressure. Differences in pressure may seem negligible and can be very difficult to measure; nevertheless, air will be drawn in or out of your space, carrying whatever contamination exists in the space and drawing it to or from other areas.

Controlling the quantity and quality of your intake and outtake sources assures clean and safe air resources. If your studio has negative pressure in comparison to the rest of the building, it will prevent your contaminated air from entering the adjacent spaces, but hazards or odors from adjacent spaces can migrate into your space. One way you may notice a pressure differential is that in a negative pressure space, outward-swinging doors become difficult to open, and inward-swinging doors may be difficult to close.

In certain scenarios, such as asbestos or mold abatement, you take advantage of pressure differentials in order to create a containment system (a room within a room where the inner room is negative and outer room is positive to the work area but neutral to surrounding space). This creates a flow of air from clean to dirty and also controls the source of makeup air.

Box 3. DILUTION vs. LOCAL EXHAUST VENTILATION

Dilution Ventilation

Dilution ventilation is created by bringing in clean air where it mixes with contaminated air before being exhausted out, thereby reducing the contaminants to a safe level. It is important to realize that you will always have some exposure to your hazard in using this method. Therefore, you must understand the exposure limits of the chemicals you are using (see *Understanding Exposure*), so that you can create a system that lowers concentrations to acceptable levels.

Dilution Ventilation, by itself, is not appropriate for particulates, aerosols or spraying, or any operation that produces surges of vapors or fumes. It should only be used for chemicals with low toxicity (those with TLVs ≥500ppm such as acetone or ethanol) or moderate toxicity (those with TLVs ≥100ppm and < 500 such as xylenes or mineral spirits). Dilution ventilation should only be used with very small amounts of chemicals with TLVs <100ppm (such as toluene and methylene chloride).

Local Exhaust Ventilation

Local exhaust ventilation involves placing extraction equipment at the source of the hazard to remove or collect the contaminants, so as to minimize the amount released into the work space. This method still relies on dilution to handle the smaller amounts of contaminate not directly captured (because of the air turbulence around the exhaust inlet). Local exhaust ventilation is required for moderate to high toxicity chemical vapors as well as for metal fume and particulate extraction.

Equipment type may need to be specific for the contaminant; state and federal regulations apply. Note that even if you are using equipment to draw away contaminants at the source, you still need clean make-up air; however, the amount of make-up air will (in general) be considerably less than with the dilution method alone.

Choosing the Right System

The two basic methods of ventilation are dilution ventilation and local exhaust ventilation. *(See box 3: Dilution vs. Local Exhaust Ventilation)*

Conservators (particularly those in home studios) are likely to rely on dilution ventilation because it is (usually) easily created in a studio space by using a combination of fans and open windows and/or doors, and requires little maintenance. Intake and exhaust should be on opposite walls to create appropriate airflow without interference from cross drafts. The amount of clean replacement air must equal the amount of contaminated air you are removing; otherwise you will not be able to control the quality or location of the additional replacement air. This also creates pressure differentials that may or may not be desirable *(see box 2: Positive vs Negative Pressure)*. Also note that the replacement air will likely need to be conditioned if you aim to maintain a specific temperature and/or relative humidity within your work space.

Fans may be the most economical way to ventilate your space using dilution ventilation, but creating adequate ventilation will require more careful consideration than just placing a fan in an

open window, turning on a ceiling fan, or putting a standing fan next to your workbench. Residential AC systems should never be used to ventilate because they recirculate air and only bring in minimal amounts of fresh air; resulting in a buildup and/or redistribution (not reduction) of contaminated air. Additionally, the air outlets of most AC systems tend to disrupt the even air flow from clean to dirty that you are trying to create unless the AC system was specifically designed for lab use.

Fans are specified by air flow rate at a specific static pressure. The flow rate is the total volume of air moved per unit of time and is usually measured in cubic feet per minute (cfm). Static pressure is the force or air pressure the fan must overcome and is usually measured in inches of water (in. w.g.). For a specific fan, as static pressure rises, flow rate drops. When a fan does not list a static pressure, it is generally assumed to be for a non-ducted application and the air flow is rated at 0" w.g.

Axial flow or propeller fans (the type found in common household fans) efficiently move air with little energy and are the generally the best option for dilution ventilation in residential applications where existing windows or door openings will be used. These fans generally create 1000 cfm of air capacity for each foot of fan surface area (for example an 18" fan creates about 1800 cfm). Fan speed is measured in revolutions per minute (RPM), and every fan runs most efficiently at a certain speed.

The simplest way to determine the required air flow rate for fan use is to employ the "room air change" method. This method establishes the amount of air that is required to completely change out the room air volume in a predetermined period of time. This is usually measured in air changes per hour (AC/HR). For low hazards, such as toilet rooms, a minimum of 10 AC/HR is recommended and for moderate hazards, such as a home conservation studio, a minimum of 15-20 AC/HR is recommended. This approach should never be used for high hazards.

For example, imagine a conservator cleaning an object with 250 ml (~1/2 pint) of evaporated to xylene (TLV = 100ppm) for an hour in a 10' x 10' x 8' room. For this calculation you would need to obtain the recommended number of air exchanges per hour – let's use 15 AC/HR. The cfm required is the volume of the room (in cubic feet) multiplied by the number of air changes per hour divided by 60 (because you are converting units from hours to minutes). Based upon our 800 cubic foot room, this method indicates that 200 cfm would be a sufficient air exhaust volume. Note that this calculation did not take into consideration the amount of solvent being used or its toxicity; larger amounts of vapor or gas require more dilution and will be more concentrated in a smaller room. Always err on the side of providing more dilution.

A more effective method to determine the cfm required to create adequate dilution ventilation considers the quantity and toxicity of the chemicals and how you are using them. A dilution ventilation equation using the volume of air required to dilute the amount of solvent to its TLV, a subjective safety factor (K), and actual working time can then be used to calculate the generation rate or required cfm. A detailed explanation of this calculation can be found in the ACGIH Industrial Ventilation Manual (2.3.1). The 23rd Edition of the manual is available online (https://law.resource.org/pub/us/cfr/ibr/001/acgih.manual.1998.pdf) Using this calculation method for the xylene example, in a room with good airflow the fan should be sized at approximately 2500 cfm, or over 10 times what the room air change based calculation required. This reinforces one of the many reasons why conservation laboratory system design is usually best left to the engineers and hygienists.

Design and Selection of Your Local Extraction Systems

Local extraction systems are generally more complex and expensive than dilution, requiring higher initial investment in the purchase of the system, setup and installation, cleaning, inspection and maintenance.

One of the first decisions you may need to make is whether you need a ducted system in which contaminants are removed through a systems of ducts within the building structure and exhausted to the exterior, or a recirculation type system (also known as a "non-ducted" or ductless system). In a recirculation system, the contaminants are collected and run through a filter to "clean" the air, and then the air is returned back to the space.

Ducted extractors are required for most chemical and particle applications including applications requiring high volume chemical use, flammable or explosive hazards and moderate to high toxicity chemicals. Prices of the units will vary by size and features, but ducted systems tend to be more expensive than recirculation-type systems. Although a ducted hood can be 4x less expensive than a similar non-ducted hood, the additional costs of the associated building systems (ducts, air handlers, and other equipment) more than make up the difference. Some of the less obvious added costs include hiring engineers to design the systems and assess the implications of its use for the overall building. For ducted systems integrated into the building ventilation system, local codes and industry standards will dictate the minimum airflow rates and acceptable locations for the exhaust outlet and air intake.

It may require several months to install a ducted system, particularly if the building ductwork is not already in place. Because of their static position, ducted hoods allow the use of additional fixtures within and around them such as airflow monitors, electrical outlets, compressed air, laboratory gas, vacuum and cold water fixtures, chemical storage, cabinets, and work surfaces. Once they are installed, they may make future renovations more difficult and costly if they need to be moved. Fixed positions and limited sizes of full enclosure, canopy or slot hoods, may also limit object treatments. A snorkel or elephant trunk, a small canopy-type hood connected to a flexible duct, allows for repositioning as needed, and is very popular with conservators. For local exhaust systems, these flexible ducts are attached to a single point on the wall or ceiling and evacuate air through a building ventilation system.

The wide range of non-ducted equipment from hoods to small portable units creates a large number of options at various price points. The major additional cost for ductless extractors is the price of filters, which can range significantly, and how often they need to be replaced is dependent on how heavily they are used. There may be additional costs for shipping and disposal of the filters but the overall energy costs will be lower. Installation times are much shorter than for ducted systems because they do not require major building alterations to accommodate ductwork. Also, they can easily be moved for future renovations or project needs.

Non-ducted exhaust systems should not be used for large amounts (> 500ml) of moderate to high toxicity chemicals or for tasks that produce heat (welding). Some chemicals cannot be safely filtered or aren't filtered effectively enough. For example, methanol is not effectively collected by a filter.

Components of Local Exhaust Ventilation

There are four components of any local exhaust ventilation: hood, ducts, fan and air filters—all systems should be well-planned and selected with care, (whether a portable/moveable extractor or a ducted hood) preferably in consultation with an appropriate HVAC specialist, engineer, and/or industrial hygienist and especially if the systems will involve creating or modifying building ventilation systems or structures.

While there are numerous hood, fan, duct, and filter options that can be chosen for specific needs and to best minimize exposure, it is important to note that no local exhaust system is 100% effective due to local air currents created through movement around the hood opening or trunk/snorkel inlet. Fume hoods can be considered 99% effective, and trunks/snorkels no more than 90% effective. Glove boxes and filtered containment enclosures are the only forms of local exhaust that completely ensure is no exposure and are used when working with extremely hazardous chemicals and for asbestos mitigation.

HOODS:

The hood is the part of your system that captures the contaminant. Types includes complete enclosures (like fume hoods with a sash), canopy, slot, plain opening, and dust collecting hoods. When selecting hood type, you will consider the toxicity of your hazard, the type of contaminant (dust, gas, vapor, etc.) and how it is released. When functioning and used properly, hoods provide excellent protection, isolating and extracting the hazard. However, their size and shape can limit the kinds of object being treated as well as the movement and access during treatment.

Your hood should provide a capture or face velocity measured in feet per minute (fpm) that draws your contaminant in completely in a range from about 50 to 2000 fpm, depending on your task and the movement of air and contaminant. For simple evaporation, minimum fpm should be 50-100. For spray booths and other low velocity contaminants released into moderately still air (such as welding), capture velocity should be in the 100-200 range. *(See also box 4: Spray Booths: A Special Situation)* For hazards that are quickly released into rapidly moving air (such as mixing of dusts and using kilns and furnaces that produce fumes), recommended minimums are 200-500 fpm. For high velocity contaminants like woodworking, grinding, abrasive blasting, 500-2000 fpm is required (ACGIH 1998, Table 3-1). Fpm can be measured with a meter, either a hand held unit, or one built into the hood frame. Portable meters are available from lab safety suppliers at a relatively low cost.

When working with local exhaust, the hazard should be as close as possible to, or enclosed within the hood, because contaminant capture efficiency is inversely proportional to the square of the distance from the hood. Hoods have a stronger draw towards that back, so working further back in the hood is recommended, although not always practical in conservation practice.

Box 4. SPRAY BOOTHS: A SPECIAL SITUATION

A spray booth is a power-ventilated structure provided to confine and limit the escape of vapors and aerosols, such as mists/combustible residue, dust, smoke and fumes. Spray booths have recommended airflow rates that vary with the toxicity of the solvents used and task employed. Spray booths have very specific regulations for their construction and use. In some places (such as New York City) they must be registered and meet specific codes for noise emission, electrical sources in and around the booth, and ventilation specifications.

Because spray booths have the potential to combust there are strict federal standards (see OSHA Standard 1910.107 and NFPA 33 Spray Applications). Regulations include the placement of sprinkler heads, clearance, ignition sources in and around the booth, what solvents can be used, and provisions for filters and fans. In addition, there are various types of fans for use in spray booths that are constructed to minimize the chances creating sparks. Type A "blower fans" ensure that any materials in contact with the air stream are spark resistant; Type B have nonferrous wheels and rubbing rings; and Type C have nonferrous plates.

For trunks/snorkels to function properly, you should be concerned with the capture velocity (V) on the surface of the object, not just the face velocity at the opening of the hood (for solvent vapors and gases this should be around 100 fpm at the object surface). Capture velocity (fpm) and exhaust volume (cfm, also called air capacity or air quantity) are related through a mathematical equation that includes the distance from the source to the size of the hood opening. This calculation demonstrates that a trunk/snorkel (because of its restricted hood size) has to be very close to the contaminant to be effective. When you cannot get close with a snorkel, you should probably be looking at another type of hood, something with a larger capture area like a canopy hood (for contaminates lighter than air) or a downdraft table (for contaminates heavier than air). Multiple ducts may be another alternative; for example, one could be placed adjacent to the mouth of your solvent container and a second could be positioned as close as safely possible to area of the object you are treating. The shape of the opening of the trunk has an effect on the capture efficiency.

DUCTS:

Ducts serve to carry the contaminants away once they have been captured by the hood. There are several considerations for duct construction, most of which serve to reduce the system's resistance and increase efficiency. The main considerations are:

- Material: Choose a material that is compatible with the types of hazards you are using. Usually this is galvanized or stainless steel. However, highly corrosive materials may require more expensive plastic ducts.
- Shape: Round ductwork is preferable to reduce resistance. Surfaces should be smooth and clean. Kinks, crimps or turns increase the resistance as well as the possibility of contaminants becoming trapped in the system.
- Length: Reducing the length of ductwork both from the

capture and the exhaust reduces cost and increases efficiency of the system.
- Size: A duct size that will exhaust air from the hood at a specific, optimum duct velocity required for particular contaminants. This is at least 3500 for particulates. Any velocity is sufficient for vapors, gases and smokes, but (1200 to 2500 fpm is the most economically efficient) (ACGIH 1998, Table 3-2). Duct work comes in a variety of diameters and thickness (gauge). The smaller the duct size, the greater the velocity and resistance (which increases the static pressure needed from the fan).
- Flexible Ducts: These are spiral in shape and made from fabric (cotton or neoprene), plastic, or metal (aluminum or stainless). Metal should be used for high temperatures, corrosive materials, solvents and dust.

FANS:

Fan selection is incredibly complex. Among other variables, ventilation experts will consider:
- the volume of air to be removed (cfm)
- static pressure (the amount of resistance in the system to overcome)
- efficiency
- explosiveness of materials
- space
- noise
- temperature

Local exhaust systems require centrifugal fans (where the air flow is discharged perpendicular to the fan's blades) and not axial propeller fans (where air flows straight through the fan), as discussed in the section on dilution ventilation describing axial fans. Fans should be installed at the discharge end of the ductwork to keep the contaminants contained in the ductwork and downstream from air filters to prevent damage to the fan parts.

AIR CLEANING DEVICES AND FILTERS

Air cleaners and filters are required for several reasons: health and safety concerns, environmental regulations, and removing particulates. Always check with industry standard and local regulations before releasing or disposing of any contaminate.

Filters may be used on exhaust air extractors to prevent hazards from being released to the environment, on recirculation-type extraction systems to protect space occupants, or on makeup air systems to protect the objects themselves from external contaminants.

Chemical Filters:

Fume extraction filter systems are carbon based, and the contaminant is collected by the filter before the air is recirculated or released outside. Self-contained units that rely only on filters to clean the air and then introduce the air back into the work area (oftentimes called portable fume extractors) create a real risk to health and safety since there is no predictable way to determine when the filter is no longer able to collect contaminants *(see box 5: Portable Fume*

Box 5. PORTABLE FUME EXTRACTORS

While filter-based fume extractors are discouraged by health and safety professionals, these may be the only option for conservators working in studios that are situated inside homes, in rooms without windows, or where the building structure cannot be altered. Because of the limitations of filter-based systems, the conservator should combine the fume extraction system with a dilution exhaust system and locate the outlet of the portable unit as close to the exhaust point as possible.

The Health & Safety Committee is currently working on a guide to help conservators research, purchase, and safely use portable fume extractors based on experiences of both conservators and health and safety professionals. If you would like to contribute to the guide, please complete the following survey by October 15:

https://www.surveymonkey.com/r/5GWBS6P

Extractors). The risks of recirculating contaminants back into the work space is particularly high in situations where there is irregular use of a variety of chemicals, or with multiple users (common in conservation practice). Furthermore, filters are specifically absorbent for particular chemicals, so it is important to check with the manufacturer to determine whether the filter type is compatible with the chemicals you will be using. Filters should be changed on a regular schedule according to manufacturer recommendations, and the rate of change is dependent on the type, temperature and volume of chemical used, filter capacity, evaporation rate, and the duration of use. Note that when filters are saturated, contaminated air is released back into the work environment without any warning to the occupants.

Particulate Filters:

Particulate filters are easily maintained, relatively affordable, and it is reasonably simple to determine when they need to be changed. These filters can be easily monitored for filter loading using a differential pressure gauge, and when selecting a portable unit for particulate filtering, choose one that comes with an integral pressure gauge. Health concerns for particulate exposure can vary from irritation, allergic response, chronic disease, poisoning, to death; particles less than 10 microns are considered respirable, meaning they penetrate to the gas exchange region of the lung as compared to inhalable particles, which includes anything that can enter and settle in the respiratory tract. High efficiency particulate air (HEPA) filters should always be used for particulates with which conservators come in contact. HEPA filters will capture particles larger than 0.3 microns, while ULPA (ultra-low particulate air) filters will filter out particles larger than 0.12 microns in size. Nano-particles or ultra-fine particles (defined as particles between 0.001 and 0.1 microns) are too small for capture by ULPA filters, and these extremely small particles can cross cell membranes to enter the blood stream and various organs. Conservators may be exposed to these particles when using certain pigments (e.g., titanium dioxide or zinc oxide) or in 3D printing applications. It is important to remember that even ULPA filters DO NOT capture 100% of the particles.

Types of Airborne Contaminants

Contaminant		Size** (microns)
Gases*	A state of matter in which the material has very low density and viscosity. Gases expand and contract greatly in response to changes in temperature and pressure, easily diffuse into other gases, and readily and uniformly distribute throughout any container.	N/A
Vapors*	The gaseous form of substances that are normally in the solid or liquid state (at room temperature and pressure). The vapor can be changed back to the solid or liquid state either by increasing the pressure or decreasing the temperature alone. Vapors also diffuse. Evaporation is the process by which a liquid is changed to the vapor state and mixed with the surrounding air. Solvents with low boiling points volatilize readily.	N/A
Fumes*	Airborne particulate formed by the condensation of solid particles from the gaseous state. Usually, fumes are generated after initial volatilization from a combustion process, or from a melting process (such as metal fume emitted during welding).	<1
Mists*	Suspended liquid droplets generated by condensation from the gaseous state to the liquid state or by breaking up a liquid into a dispersed state, such as by splashing, foaming, or atomizing. Formed when a finely divided liquid is suspended in air.	1-100
Aerosols	Particles (solid or liquid) that remain suspended in air for a period of time. Aerosols include mists, smokes, fumes, and dusts.	<0.01-100
Dusts*	Solid particles generated by handling, crushing, grinding, rapid impact, detonation, and decrepitation of organic or inorganic materials, such as rock, ore, metal, coal, wood, and grain. Dusts do not tend to flocculate, except under electrostatic forces; they do not diffuse in air but settle under the influence of gravity.	0.01-100
	Fabric Lint	10-100+
	Mold	10-100
	Abrasive Cleaning	0.3-30
	Colloidal Silica	0.01-0.1
	Ceramic frit	1-30
	Pigments	0.1-5
	Wood Dusts	0.1-100
	Asbestos	0.5-30
	Metal Dusts (grinding, buffing)	0.5-100
	Metal Fume (welding, soldering)	0.01-0.5
Smokes	A complex mixture of different gases and particles, which results from the burning of various materials. Smoke is the result of incomplete combustion, which produces tiny particles of carbon in the air. When deposited, these particulates are identified as soot.	0.01-1

**Fundamentals of Industrial Hygiene*, by Barbara A. Plog et al., 2012, published by the National Safety Council.

**Clark, et. al 1984

Summary

This guide is intended to introduce conservators to the basic principles and concerns involved in creating proper ventilation within their work place. There are numerous technical resources that cover this topic in greater detail, which should be consulted in conjunction with technical experts. An HVAC or mechanical engineer can help you determine the best equipment based on your industry standards, building codes and environmental regulations. An industrial hygienist can help you determine the best equipment and work practices for your unique exposure, and fellow conservators can help recommend features that may be unique to conservation practice.

Finally, protecting yourself doesn't end with the selection or installation of your extraction and ventilation systems; without proper protocols, you may not know if your system is malfunctioning until after exposure has occurred. Inspection, maintenance, and training on the proper use of these systems are essential to maintain health and safety for yourself and the individuals around you.

—Kerith Koss Schrager, co-chair AIC Health & Safety Committee/Objects Conservator, The Found Object Art Conservation, kerith.koss@gmail.com, and William Jarema, PE, Principal, EwingCole, wjarema@ewingcole.com

ACKNOWLEDGMENTS

Acknowledgements and thanks are due to Anne Kingery-Schwartz (co-chair AIC Health & Safety Committee/Objects Conservator, Kingery Conservation, LLC), Julie Sobelman, (CIH, CSP, LEED AP, Industrial Hygiene Consultant), Jeffrey Hirsch (AIA, LEED AP, Principal, Director of Cultural Practice, EwingCole) and Kathryn Makos, (CIH, MPH, Smithsonian Institution, retired). Their help in reviewing and providing commentary for this article was invaluable.

RESOURCES:

American Conference of Governmental Industrial Hygienists (ACGIH). 1998. *Industrial Ventilation: A Manual of Recommended Practice 23rd Edition*. https://law.resource.org/pub/us/cfr/ibr/001/acgih.manual.1998.pdf

Canadian Centre for Occupational Health and Safety. 2016. *Industrial Ventilation (OSH Answers Fact Sheet)*. http://www.ccohs.ca/oshanswers/prevention/ventilation/introduction.html

Clark, N., Cutter, T., and McGrane, J. 1984. *Ventilation: A Practical Guide for Artists, Craftspeople and Others in the Arts*. New York: Center for Occupational Hazards.

McCann, M. 2008. *Health Hazards Manual for Artists, 6th Edition*. New York: Lyons Press.

McCann, M. 2005. *Artist Beware, Updated and Revised: The Hazards of Working with All Art and Craft Materials and the Precautions Every Artist and Craftsperson Should Take*. New York: Lyons Press.

Mohr, K. and Henningsen, C. 2015. "To Duct or Not to Duct: Chemical Fume Hoods in Your Facility." *Forensic Magazine*, June/July, p. 28-29. http://digital.forensicmag.com/forensics/june_july_2015?pg=28#pg28

Occupational Safety & Health Administration, US Department of Labor. "Ventilation Investigation, Section III: Chapter 3." *OSHA Technical Manual*. https://www.osha.gov/dts/osta/otm/otm_iii/otm_iii_3.html

Rossol, M. 2001. *The Artist's Complete Health and Safety Guide: Third Edition* by Monona Rossol. New York: Allworth Press.

Have a question about health and safety in your conservation work?

Email HealthandSafety@conservation-us.org.

Definitions Used in this Article:

- **Air Capacity, Air Quantity or Exhaust Volume (cfm)**: The volume of moving air per unit time
- **Air Velocity (fpm):** The speed of air in feet per minute. Varies throughout a ventilation stem depending primarily on the shape through which it passes.
- **Capture Velocity:** The air velocity required to force the contaminated air into the hood and away from the source of the contamination
- **Duct Velocity:** The average air velocity in the ducts to move. Static pressure is either positive or negative in relation to atmospheric pressure.
- **Face Velocity:** The average air velocity across the opening of a local exhaust hood or extractor
- **Make-up or Replacement Air:** Air brought into the workspace to replace the aired exhausted by the ventilation system
- **Static Pressure:** The potential pressure exerted in all directions that must be overcome for air
- **Transport Velocity or Conveying Velocity:** The velocity in the ducts required to keep solid particles moving in the airstream. Minimum velocities vary based upon the specific contaminants.
- **Velocity Pressure:** Force exerted by air that is moving. It is exerted in the direction of flow and is always positive. Velocity pressure in the ducts of a ventilation system is used to compute pressure loss of air entering a hood.

(Source, Clark, et. al. 1984)

AIC News

Internal Advisory Committee to Meet Nov. 11

The 2016 meeting of the Internal Advisory Group (IAG) will take place on Friday, November 11, in Washington, DC. The Kimpton Mason & Rook Hotel, located at 1430 Rhode Island Avenue, NW, is serving as the host hotel. If you have comments or concerns you'd like addressed at the meeting, please contact your specialty group chair, or relevant network or committee chair, before November 11, 2016.

AIC Board Elections

The AIC Nominating Committee encourages members to submit nominations for qualified individuals as candidates for election to the following positions:

- President
- Vice President
- Director, Professional Education
- Director, Specialty Groups

The Nominating Committee must receive completed nominations by February 28, 2017, three months prior to the May Member Business Meeting at the Annual Meeting in Chicago, IL. The AIC Bylaws require that candidates for president and vice president positions be Fellows and candidates for director positions be Fellows or Professional Associates. The nominees for all positions must be members in good standing of AIC and should have prior experience with the functioning of the organization through service on committees, task forces, specialty groups, or in other capacities.

Committee members will be pleased to discuss any aspect of the nominating and election process with potential candidates and anyone interested in nominating candidates. Please contact Victoria Montana Ryan (acs@artcareservices.com), Jodie Utter (jodieu@cartermuseum.org), or Beverly Perkins (beverlyp@centerofthewest.org).

Nominating Committee

The Nominating Committee is seeking nominations of qualified members as candidates for the Nominating Committee election. The committee, composed of three members each serving a three-year term, has one vacant position each year. The 2017 candidate can be either a Professional Associate or Fellow member of AIC. With approval of the revisions to the AIC Bylaws on April 30, 2015, nominations are made to the chair of the Nominating Committee and must be received February 28, 2017, three months prior to the May Member Business Meeting in Chicago, IL. An electronic vote will be held in conjunction with the votes held for Board member positions.

—AIC Nominating Committee, Victoria Montana Ryan (acs@artcareservices.com), Jodie Utter (jodieu@cartermuseum.org), Beverly Perkins (beverlyp@centerofthewest.org)

Renew Your Membership Online & Be Entered to Win

Did you know that 87% of our annual meeting attendees register online and pay via credit card? But when it comes to membership renewals, only two-thirds of our members pay online! In addition to saving time, online payments also help you (and AIC) save money, are eco-friendly, and free up staff to dedicate more time to member service.

Each fall, AIC's Membership Department creates dues orders for that year's current members. Your order reflects your previous year's membership selections, including specialty groups. When renewing online, you have the option to add specialty groups, but **will not be able to remove them yourself.** To remove a specialty group, change your membership type (when transitioning out of school or into retirement, for example), or make other changes, please email membership@conservation-us.org.

We will hold a drawing at the end of 2016 to award three prizes, and all members that renewed online by December 15th will be entered. The grand prize is a free registration to the AIC Annual Meeting in Chicago, plus two FREE nights at the hotel. We also offer two second-place prizes: each one is a free membership (two members will win!). You must renew online by December 15, 2016, for this opportunity. We will announce the winners in the January issue of *AIC News*.

The 2016 Member Print Directory

AIC is pleased to announce that the print version of the AIC membership directory will be available for print-on-demand purchase in the AIC store this fall. When the online member directory was unveiled in 2014, we were impressed by its search capabilities (search for someone by first name, city, or even their initials!) and its ability to update instantly with new member information. However, some members still reach for their old spiral-bound book to flip through the pages as they search for a colleague. While it's not financially feasible to offer both and keep our low AIC member dues, we can offer a deep discount on the new print version.

The print-on-demand version will feature a letter from the board president; membership information and categories; lists of staff members, board members, and editors; award recipients; and individual members, institutional members, specialty group members, and members by geographic location.

Members will be able to purchase the directory for $25, a 60% discount off the list price, using a code that will be emailed to you when we announce the publication's availability. We will be printing a small run of books in advance of the print-on-demand option, so if you would like to voice your intention to purchase a book, this will help us gauge interest in this edition and possible future editions. Please send comments to publications@conservation-us.org.

Apply for Professional Associate and Fellow via our new Online Form

It is now possible to apply for Professional Associate and Fellow status online using our new submission system!

If you meet the following qualifications, please submit your application today. A candidate for **professional associate** designation must:

- Be a current Associate member
- Have earned an undergraduate university degree or the international equivalent (a waiver may be attained by writing to the Membership Committee explaining any equivalent education)
- Have two (2) years of full-time formal education or related supervised training in a field appropriate to other professional involvement in conservation (e.g., chemistry for conservation scientists, library science for library preservation administrators, art history for museum conservation administrators, business management for administrators)
- Have three (3) years of full-time work or its part-time equivalent in conservation or in a conservation related profession after training. Program training internships may not be counted toward this requirement.

Why apply?

There are many additional benefits you will receive with AIC's professional designation.

- Listing in the public "Find a Conservator" tool on our website
- Ability to use the PA and Fellow marks in marketing materials
- Recognition when applying for jobs, contracts, and grants
- Priority to apply for certain FAIC professional development opportunities
- Eligibility to apply for individual professional development scholarships
- Respect from among your peers and colleagues

Applying is easy! The online application requires the following steps:

1) Fill out your contact information
2) Upload a professional history form
3) Attach 2 examples of your work
4) Write an essay (500 words or less)
5) Name 3 sponsors (the sponsors can upload their comments directly via an emailed link)

Application cycle deadlines are: October 1, January 1, and July 1. For more information, email membership@conservation-us.org. When you are ready to apply, just click on the application links at www.conservation-us.org/designation.

Welcome to AIC's New Communications Associate

Please welcome our new Communications Associate, Carmina Lamare-Bertrand. She will be working with Bonnie Naugle, primarily developing and implementing communications strategies for AIC's journal and newsletter while promoting the mission of the Institute. Prior to joining our team, she worked at the Oceanographic Museum of Monaco where she was involved in the preparation of all communications material and coordination of media and public relations for the opening of main temporary art exhibits. She brings over 10 years of experience, part of which was with the United Nations. She has an M.A. in Organizational Communications from the Institut d'Administration des Entreprises and a B.A. in Broadcasting Journalism from American University. She joined us on July 25, 2016.

Annual Meeting News

Make Chicago Memorable in 2017

Join us for the 45th AIC Annual Meeting in Chicago, May 28 to June 2, 2017. Create the Chicago experience that is right for you! The conference officially opens on May 30, at 8:30 a.m. with the Tuesday morning opening general session, and will run through Thursday afternoon, June 1. However, you will not want to miss the all the pre-conference offerings on Sunday, May 28, and Monday, May 29. Visit www.conservation-us.org/meetings to see the schedule as it's created and updated.

Spend your Memorial Day weekend with AIC in one of America's most iconic cities! We will be offering a full slate of workshops, pre-sessions, and tours. Just a few of the offerings will include:

- An afternoon at the University of Chicago
- A full-day Frank Lloyd Wright experience
- "Devil in the White City" walking tour
- A two-day mural conservation tour
- Behind-the-scenes tour at the Art Institute of Chicago
- "Prohibition by the barrel" tour
- A two-day exhibit-lighting workshop
- An architectural history twilight cruise

And many more! A full list of tours and workshops will go live in October, so check the Annual Meeting pages for more information.

Receptions and Other Networking Events

We will offer many opportunities for you to catch up with old friends and make new ones. The Opening Reception will be held at the Art Institute of Chicago on Tuesday, May 30, from 6:30 to 9:30 p.m. with extra gallery viewing time beginning at 5:45 p.m. Many specialty groups will be hosting their receptions on Wednesday, May 31. Some confirmed locations include: the Union League Club of Chicago, the Glessner House Museum, and the Chicago History Museum.

Present a Paper or Poster

Do you want to make your conference experience truly memorable? Present a paper or poster! The Annual Meeting's theme is *Treatment 2017: Innovation in Conservation and Collection Care.* Whether at item or collection level, preventive or interventive, treatment remains at the heart of what conservators do in order to preserve cultural heritage collections. The design and implementation of an ethical and sound conservation treatment, even the ultimate decision of no treatment at all, begin before its commencement and the consequences continue well beyond its completion.

Papers are solicited that explore various facets of conservation treatments and collection care programs intended to prolong the lifetime of cultural property. Topics may include, but are not limited to, a reconsideration of historic procedures no longer in practice, cutting edge technologies employed in treatments, effective preventive conservation or collection care steps that reduce the necessity or extent of interventive treatments, the incorporation of sustainability into conservation treatments, or innovations in treatment design, execution, and documentation.

The online abstract submission portal is open. We have extended our abstract submission deadline to **11:59 p.m. on September 23, 2016**. Please continue to check the **Call for Submissions** page for updates and information on specialty calls for papers.

We look forward to seeing you in Chicago for Memorial Day weekend and in the memorable week to follow. Registration is now open at the money-saving member preview rate of just **$299**.

FAIC News

CAP Assessor Applications Available Soon

As FAIC builds toward the launch of the new Collections Assessment for Preservation (CAP) Program in late fall, we will be actively seeking conservators interested in performing general conservation assessments for the program's small- and mid-sized institutions. CAP is a technical assistance program that provides eligible museums with partial funding to support a two-day site visit and assessment report by both a collections assessor and a building assessor. Participating institutions select their own assessors from the "Approved Assessors" list. To qualify for the Approved Assessors list, you must demonstrate in your application:

- professional training in conservation, zoology, botany/horticulture, architectural conservation/preservation, architecture, landscape architecture, or engineering;
- at least 5 years of experience in the field; and
- experience conducting general collections assessments.

Assessors who previously worked with Heritage Preservation on the CAP program will need to re-apply.

Assessor Applications will be available online this fall. Anyone wishing to receive the Assessor Application via email when it becomes available should send a request to Emily Conforto, CAP Program Assistant, at econforto@conservation-us.org.

National Preparedness Month

FEMA has dubbed September "National Preparedness Month." During the coming weeks, this national campaign will highlight the steps that individuals can take to ready themselves for emergencies.

The campaign has different themes for each week of the month:

Week 1	Aug 28-Sep 3	Kickoff to National Preparedness Month
Week 2	Sep 4-10	Preparing with Family & Friends
Week 3	Sep 11-17	Preparing Through Service
Week 4	Sep 18-24	Individual Preparedness
Week 5	Sep 25-30	Lead up to National PrepareAthon Day

During its annual "MayDay" campaign, FAIC encourages collecting institutions to set aside time during the month of May to perform one action that will boost institutional preparedness. By participating in the September weekly campaign, you can make sure that you have a plan at home as well, so that you'll be ready on all fronts when an emergency situation arises.

FEMA's "National Preparedness Month" campaign, particularly the "National PrepareAthon Day" on September 30, provides another great opportunity to build planning into your calendar.

Find out more at http://community.fema.gov.

FAIC Welcomes New Board Member

The FAIC board and staff are pleased to welcome Annelien Bruins as the newest member of the FAIC board, serving an initial three-year term. Annelien is senior art advisor and chief operating officer of Tang Art Advisory in New York. She holds an MA in Arts and Heritage Management from the London Metropolitan University, certificates in Art Profession Law and Ethics and Art Law from the Institute of Art and Law in London, and an MSc in Leadership & Strategy from the London Business School's management program for senior executives. Annelien brings to the FAIC board her business acumen, marketing experience, knowledge of the global art world, and a broad network of contacts.

FAIC Samuel H. Kress Conservation Publication Fellowship Applications due November 1, 2016

This $30,000 fellowship is designed to give conservation professionals release time from their professional responsibilities in order to complete book-length manuscripts. The maximum fellowship duration is eighteen months, so candidates should have all basic research completed prior to the start of the fellowship. Successful applications typically include a detailed outline of the work as well as one or more completed sample chapters.

Applicants must be AIC Fellows or Professional Associates. Guidelines and applications are available at www.conservation-us.org/grants/publication.

For more information about the publication of fellowships, contact Eric Pourchot, Institutional Advancement Director at epourchot@conservation-us.org or by calling (202) 661-8061.

FAIC Grant and Scholarship Applications due December 15, 2016

George Stout Grants offer up to $1,000 to support costs of attending professional meetings for students (or those who graduated within the past 2 years) who are members of AIC.

FAIC / Tru Vue AIC Annual Meeting International Scholarships grant up to $1,500 to support attendance at the AIC Annual Meeting for individuals traveling from outside the US or Canada. Priority is given to individuals who plan to share lessons learned during the meeting and who have had little opportunity to attend international meetings.

FAIC Seeks Reviewers for Samuel H. Kress Conservation Fellowships

FAIC is managing the selection and award process for the Samuel H. Kress Conservation Fellowships. The program aims to provide a variety of professional development experiences to young conservation professionals. FAIC thanks the many AIC members who have volunteered to review Fellowship applications. If you are interested in serving as a reviewer, please send an email with your contact information, specialty area(s), and institutional affiliation (if any) to faicgrants@conservation-us.org.

The next application deadline for Fellowships is January 22, 2017, with review to follow. Application guidelines are available on the AIC/FAIC website at www.conservation-us.org/grants.

Call for Papers on Salted Paper Prints - Submissions due December 16, 2016

FAIC is now accepting submissions to present at the Salted Paper Prints Symposium on September 14-15, 2017.

The Weissman Preservation Center at Harvard Library and the Foundation for the American Institute for Conservation of Historic and Artistic Works (FAIC) will present a multidisciplinary, two-day program that focuses on the preservation, characterization, use, and interpretation of the salt print process, a technique that is now over 175 years old. Scholarly presentations will include the technical history of the salt print process (both positive and negative images), historical applications of the process for copying and disseminating information, and innovative materials analysis. The program is supported in part by grants from the National Endowment for the Humanities and The Andrew W. Mellon Foundation.

The salted paper print process, publicly announced by William Henry Fox Talbot in 1839, became the first negative-to-positive photographic technique. The ability to make photographic multiples revolutionized the way information was recorded and disseminated in the mid-19th century. These photographs represent records of the scholarly, social, and artistic endeavors of the time and play an important role in educational research across disciplines. While many salt prints have survived as beautifully preserved images with rich tonal ranges, they can also be prone to fading and color shifts. New conservation research has contributed to our understanding of these fragile items, and renewed interest in the historical and artistic aspects of salt prints has paralleled this preservation research.

Applicants are encouraged to submit abstracts or drafts of 300 words or less, and a brief biography or CV. Preference will be

Art Preservation Services

www.apsnyc.com

APS Products & Services

- **Microclimate control**
  RHapid gel is the most efficient high performance silica gel available for museum applications. It is available at specific RH ranges, and is packaged in half-pound (250 gram) soft packs.

- **Environmental Monitoring**
  Arten Meters are a small, elegant solution for monitoring RH and temperature in museum exhibition cases. The internal RH indicator strip provides an independent verification of RH accuracy.

- **Leakage Detection**
  APS has developed easy and accurate means to determine air exchange rates and methods for locating case leakage in sealed cases and storage units.

Your Trusted Source for Microclimate Information and Technology

Art Preservation Services is a pioneer in microclimate technology for museums. Based on decades of research, APS has developed unique methods, materials and equipment for the control of relative humidity in museum exhibition cases and storage units.
These innovations provide critical tools for balancing the twin goals of preserving collections and achieving energy-efficient and sustainable micro-environments and macro-environments.

Check out our website for information and products

APS specializes in solutions that address the THREE essential requirements that are necessary for achieving RH microclimate control:

1. A simple, reliable and cost-effective means for controlling RH.
2. Appropriate equipment for monitoring case RH conditions.
3. Methods for evaluating case leakage.

APS NYC

44-02 23RD St., STE #102, Long Island City, NY 11101 – Tel: 718.786.2400
Steven Weintraub – Principal, Art Preservation Services, Inc., NYC

given to recent collaborative research that uses scientific and art historical evidence to shed light on the preservation of salt prints, their technical evolution and identification, and the cultural impact of this seminal photographic process.

Topics can include but are not limited to:

- Subject-based research relating to early photography;
- Chemistry, materials, and process;
- Characterization and variants within the process;
- Preservation and conservation treatment of salt prints; and
- Contemporary uses/issues (works by contemporary artists, imaging, exhibition, reading room guidelines, teaching, current areas of academic research).

To apply, visit the online submission portal: https://faic.secure-platform.com/a/solicitations/home/1025

You will be prompted to login to the system using a login ID and password. If you already have an account with AIC/FAIC (this should be the case if you are an AIC member or have participated in an AIC/FAIC program), use the same login information you use to access that account. If you do not have an account in the system, you can quickly create one before you begin your application.

All applicants will be notified by FAIC of their application status four to six weeks after the submission deadline.

Allied Organizations

American Alliance of Museums (AAM), Registrars Committee News (RC-AAM)

The 2016 AAM Annual Meeting in Washington, DC, was a memorable gathering where all participants enjoyed an excellent lineup of guest speakers, sessions, and networking opportunities.

Reinforcement Crew members working at the Heurich House Museum

A highlight of the RC-AAM Business Luncheon was the presentation of the Dudley-Wilkinson Award of Distinction. This award was established in 1988 to honor Dorothy H. Dudley and Irma Bezold Wilkinson, the first authors of Museum Registration Methods. The award is given once every two years to a museum professional who has demonstrated outstanding commitment to the highest standards of excellence in the registration profession. Congratulations to the 2016 honoree, John Simmons.

This year's annual service project, our Reinforcement Crew, worked at two sites: The Heurich House Museum Archives and the Montgomery County Historical Society. We were pleased with the collection improvements made by the 20 volunteers who participated.

To read more RC-AAM news and to download PDF files of the minutes from both the annual RC-AAM Board Meeting and RC-AAM Business Luncheon, visit www.rcaam.org/about/news.

The next AAM Annual Meeting will be in St. Louis, MO, from May 7-10, 2017. If you have questions, contact me or email AAM staff at **proposal@aam-us.org**.

RC-AAM appreciates learning from expert speakers from AIC on conservation and conservation related topics.

—Suzanne Hale, RC-AAM Chair,
suzanne.hale@colostate.edu

People

Sarah Reidell has been appointed as the Margy Meyerson Head of Conservation at the University of Pennsylvania Libraries. As Head of Conservation, she will be responsible for the care and treatment of the special collections of the Penn Libraries, consisting of about 300,000 rare books and 15,000 linear feet of manuscripts. Sarah comes to Penn Libraries from the New York City Public Library, where she most recently held the position of Associate Conservator for Rare Books and Paper. She has also held positions at Harvard University's Weissman Preservation Center and Philadelphia's Conservation Center for Art and Historic Artifacts. Recently approved as a Fellow of the AIC, Sarah serves as the AIC Publications Committee Chair and has held other elected positions within the BPG. She has also lectured and led hands-on professional development workshops for conservators at leading national cultural institutions on areas of technical expertise and conservation practice.

In Memoriam

Geoffrey Michael Lemmer (1942-2016)

Geoffrey Michael Lemmer died June 11, 2016. He had private and institutional conservation practices in Delaware and Maryland before retiring in 1999 to Marathon, Texas. Contributions in his memory may be made to the Marathon Volunteer Fire Department, P.O. Box 365, Marathon, TX, 79842.

Worth Noting

Recent National Endowment for the Humanities (NEH) awards totaled over $1.66 million in grants for Sustaining Cultural Heritage Collections. Fourteen collecting institutions across the country have received grants ranging from $25,000 to $300,000, primarily to improve environmental conditions for the long-term preservation of their collections. Learn more about these grants and the NEH's work to support the humanities at www.neh.gov.

Grants & Fellowships

The American Academy in Rome: Apply for the 2017 Rome Prize!

For over a century, the American Academy in Rome (AAR) has awarded the Rome Prize to support innovative and cross-disciplinary work in the arts and humanities. Rome Prize Fellowships include a stipend, room and board, and individual work space at AAR's eleven-acre campus in Rome.

Fellowships are awarded in the following disciplines: Ancient Studies, Architecture, Design (graphic, industrial, interior, exhibition, set, costume, and fashion design, urban design, city planning, engineering, and other design fields), Historic Preservation and Conservation, Landscape Architecture (includes environmental design and planning, landscape/ecological urbanism, landscape history, sustainability and ecological studies, and geography), Literature, Medieval Studies, Modern Italian Studies, Musical Composition, Renaissance and Early Modern Studies, and Visual Arts (painting, sculpture, drawing, photography, film/video, installation, new media, digital arts, and other visual arts fields). Submissions are due on November 1, 2016. Additional fees will apply to applications received up to November 15, 2016.
For guidelines and more information, visit at http://www.aarome.org/apply.

Training Programs (ANAGPIC)

Buffalo State College, Art Conservation Department

The Class of 2017 third year internship sites include:

Lisa Ackerman	The Metropolitan Museum of Art, New York City, NY
Lyudmila Bua	Conservation Laboratory, New York University, New York City, NY
Barbara Goldsmith	Conservation Laboratory, New York University, New York City, NY
Amanda Burr	UCLA¹s Library, Los Angeles, CA and Leiden University Library, The Netherlands
Sarah Casto	Art Institute of Chicago, Chicago, IL
Maria Cristina Rivera-Ramos	Art Institute of Chicago, Chicago, IL
Kathryn Harada	National Gallery of Art, Washington DC
Sophie Hunter	Museums of New Mexico, Santa Fe, NM
Nicole Passerotti	Philadelphia Museum of Art, Philadelphia, PA
Paige Schmidt	Biltmore Estate, Asheville, NC
Stephanie Spence	Nelson-Atkins Museum of Art, Kansas City, MO

Columbia University

The 2016 fall internship includes:

Sarah Sojung Yoon	Conserving Modern Architecture Initiative, Getty Conservation Institute, Los Angeles, CA

New York University, Institute of Fine Arts Conservation Center

Announcing the placement of students in their fourth-year internships:

Emily Cohen	Supervisor: Jana Dambrogio	Wunsch Conservation Lab, MIT Libraries Curation and Preservation Services, Boston, MA
Harry DeBauche	Supervisor: Cynthia Moyer	The Metropolitan Museum of Art, New York City, NY
Rebecca Gridley	Supervisors: Carolyn Riccardelli and Wendy Walker	The Metropolitan Museum of Art, New York City, NY
Shannon Mulshine	Supervisor: Marjorie Shelley	The Metropolitan Museum of Art, New York City, NY
Bermet Nishanova	Supervisor: Bettina Niekamp	Abegg-Stiftung, Bern, Switzerland
Laura Panadero	Supervisor: Erin L. Murphy	Weissman Preservation Center, Harvard University Libraries, Boston, MA

University of Pennsylvania, School of Design

The summer 2016 internship projects were as follows:

César Bargues Ballester	George Nakashima's Art Building (Getty Grant Program), Buck's County PA, and Jackson Lake Lodge (National Park Services), Moran, WY
Courtney Magill	Woodlawn Cemetery, Elmira, NY and Vizcaya's Pool Grotto, Miami FL
Shuang Wu	Site Vulnerabilities to Climate Change in the Arid Southwest US (National Park Service)
Evan Oskierko-Jeznaki	Monitoring Change at Earthen Sites (Penn Global Engagement Fund)

Please Note:

Open Positions, Fellowships, and Internships are listed online and continually updated at www.conservation-us.org/jobs.

Winterthur/University of Delaware Program in Art Conservation

The program's third year students, their internship sites and majors are:

Gerrit Albertson	Painting Conservation	The Rijksmuseum, Amsterdam, The Netherlands
Margaret Bearden	Objects Conservation	Peabody Museum of Archaeology and Ethnology, Boston, MA
Alexa Beller	Painting Conservation	Isabella Stewart Gardner Museum, Boston, MA, and Private Practice of Gianfranco Pocobene, Boston, MA
Leah Bright	Objects Conservation	Arizona State Museum, Tucson, AZ
Jessica Chasen	Objects Conservation	Rijksmuseum, Amsterdam, The Netherlands
Julia Commander	Objects Conservation	University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA
Madeline Corona	Painting Conservation	J. Paul Getty Museum, Los Angeles, CA
Emilie Duncan	Objects Conservation	University of Virginia Library, Richmond, VA
Samantha Owens	Painting Conservation	The Metropolitan Museum of Art, New York City, NY
Josh Summer	Objects Conservation	The Mauritshuis Royal Picture Gallery, Den Haag, The Netherlands

Kress-funded Publication Now Available as a PDF

Comparative Anatomy of Branches, Roots and Wood of Some North American Dicotyledonous and Coniferous Trees and Woody Shrubs Used in Ethnographic Artifacts: Identification and Conservation Concerns, by Mary-Lou E. Florian

This new book is now available online as a PDF and can be directly accessed at http://hdl.handle.net/2429/58548 or https://open.library.ubc.ca/cIRcle/collections/ubccommunityandpartnerspublicati/52387/items/1.0306940.

This book deals with the comparative anatomy of the tissues of the bark, phloem, heartwood, sapwood, and pith in wood, branches, and roots of woody shrubs, hardwood trees, and softwood coniferous trees reported to have been used historically in making ethnographic and archaeological artifacts. The species researched in this book are endemic to Northwest Coast of North America. These species have generic anatomical characteristics that are also common in other genera of the same family. Thus, the information is applicable to tree genera in similar latitudinal environments in Canada, USA, Europe, and Asia. The goal of the information is to assist curators with their research and conservators with their care of artifacts made of these plant parts.

The preparation of this book was made possible through a Samuel H. Kress Conservation Publication Fellowship, administered by FAIC.

Specialty Group Columns

Book and Paper Group (BPG)

2017 AIC Annual Meeting

Program Chair Victoria Binder and Assistant Program Chair Debra Cuoco are busy preparing for the 2017 Chicago meeting. Please consider submitting an abstract by **11:59 p.m. on September 23** through AIC's submission portal www.conservation-us.org/abstracts. This year we will have a joint session with Research and Technical Studies (RATS), focusing on the intersections of treatment and scientific research.

If you haven't done so already, please visit BPG's Memberfuse group: aichaw.mymemberfuse.com/group/book&paper. Members receive notification emails with the header "AICHAW Notifications" to the primary email address in their AIC profiles. These messages are summaries of what other members are doing on the networking site. You can network with colleagues, learn what specialty and discussion groups are up to, peruse business meeting minutes, and use the online calendar.

We will be conducting online voting in the next few weeks to approve the Montreal BPG business meeting minutes. Thanks to Secretary/Treasurer Mary Oey for recording and compiling the minutes. Voting instructions will be emailed to the address you have on file at the AIC website (this may or may not be the same email address as the one you use for MemberFuse). This email will come from the address "info@conservation-us.org." Look for the Business Meeting minutes in your inbox soon!

—Whitney Baker, BPG Chair, bpg.whitneybaker@gmail.com

Conservators in Private Practice (CIPP)

2016 AIC Annual Meeting

The summer seems to be leaving the meeting in Montreal as a distant memory, yet, it was only a couple of months ago! Look forward to the content posting of the private practice session, "*Collaborating With Other Art Conservation Practices,*" in the next month. Here is a quick reminder of the great information we have gathered to help you expand the capabilities (and therefore your cash flow) of your private practice:

The program addressed pros and cons for a private art conservation business to either offer services to assist on someone else's contract, or to hire other professionals for a project. The participants in this seminar were experienced, practicing art conservation professionals with real world experience.

The presentations addressed these issues:

- Collaboration vs Competition

- Multiple streams of income-greater income
- Comparing various types of contracts and working situations
- Business is a team sport
- International collaborations
- Emergency preparedness and response situations
- Collaboration with allied fields
- Subletting space to other conservation professionals
- Different jobs, similar conditions to consider
- The benefits of collaborating on a survey
- Conditions that would require hiring out one's services, and how to budget for independent contractors
- "For Hire" and "Needed" listings/networking
- Collaboration for more media coverage to benefit of all parties
- Confidentiality issues
- Problems with being the "lone wolf"
- Does collaborating add stability to the practice/lab?

2017 AIC Annual Meeting

The 2017 CIPP Annual Meeting programming in Chicago is now in the planning! The theme for our workshop will be "Innovative Tools to Enhance Your Business," and we expect it to be a fun presentation including innovative and useful gadgets, apps, technology, computer programs, and websites for the conservator in private practice. Already on the docket is a presentation on Magnification Technology.

Digital photography equipment upgrades seem to be a re-occurring subject on the listserv throughout the year. As a result, we envision discussing uses of video and photos, and legalities of image use of other people's property. Can you line-item this in a conservation project estimate? Is there a subcontractor/expert to offer this service or expertise as members of your "business team?"

All of this information and the "latest find" of something that filled a need and "turned on a light bulb" comes from YOU!! Let's discuss your idea. Please call Scott M. Haskins at (805) 564-3438 or write to faclartdoc@gmail.com.

—*Scott Haskins, CIPP Program Chair, faclartdoc@gmail.com*

Electronic Media Group (EMG)

2016 AIC Annual Meeting

The Electronic Media sessions in Montreal were stimulating, and presentations varied from disaster recovery strategies for multimedia and musical instrument collections to deployment of the new Matters in Media Art website, emulation as a conservation service, and preserving pinball collections.

The EMG held its Business Meeting during the Annual Meeting, during which we discussed the migration of the EMG website to the new AIC platform and templates in the coming year, and the success of TechFocus III: Caring for Software-based Art held in September 2015. Videos of the entire TechFocus III program are now available online at http://resources.conservation-us.org/techfocus/techfocus-iii-caring-for-computer-based-art-software-tw/.

EMG Postprints

Postprints from the 2016 sessions will be published in the *Electronic Media Review,* now in development to be disseminated in electronic format. Postprints from 2013-2016 are now in various stages of submission, review, and approval. We are grateful to all of the participants who have been a part of this process. I want to recognize the outstanding work of Jeffrey Warda, who is stepping down as the Editor of the *Electronic Media Review*, and Briana Feston-Brunet, *Electronic Media Review* incoming editor. This is an exciting migration to electronic dissemination of EMG's *Electronic Media Review*, and I look forward to sharing more information on the progress of this project.

2017 AIC Annual Meeting, Call for Papers

The EMG officers are very excited about the 2017 AIC Annual Meeting and we are hard at work planning unique sessions that will capitalize on the wealth of resources in Chicago. Please consider submitting a paper for Electronic Media sessions at the 2017 Annual Meeting, which will take place in Chicago, IL, from May 28 - June 1. The theme is *Treatment 2017: Innovation in Conservation and Collection Care*, and we welcome submissions on this subject and/or general topics of interest to EMG members. Abstracts are due by **11:59 p.m. on September 23, 2016**. For further information, visit AIC's website at www.conservation-us.org/annual-meeting/call-for-submissions.

—*Crystal Sanchez, EMG Chair, sanchezca@si.edu*

Objects Specialty Group (OSG)

OSG Leadership

This spring marked transition in the OSG leadership. We wish to express our gratitude to our former Group Chair, Sarah Barack, for her hard work and dedication throughout the year and her continued help with all things OSG. We also congratulate Sarah for being elected as AIC Treasurer. I will continue my service as Group Chair, with Tony Sigel as Program Chair, and Ariel O'Connor as Assistant Program Chair.

2017 AIC Annual Meeting

Tony and Ariel are working hard to plan sessions for the Annual Meeting in Chicago next year. Please consider submitting an abstract about your work, either as a paper or a tip to our OSG Program, which we hope will be an extremely practical series of talks on *how* to do things, *why* to do them and *how* best to do them by using new materials and methods, as well as old and established ones. Please see the Call for Submissions online at http://www.conservation-us.org/annual-meeting/call-for-submissions.

Find an Archaeological Conservator

The Archaeological Discussion Group (ADG) is pleased to announce that "Archaeological Fieldwork" is now available as a specialty area choice in the AIC's online *Find a Conservator* Tool. Within this specialty, conservators can indicate a variety of archaeological-specific sub-specialties. If you work on archaeological sites or artifacts, update your profile today! Please note that changes to your profile will go live at midnight on the day they're

made. Professional Associates and Fellows are eligible for listing in the *Find a Conservator* tool, which lets non-AIC members easily search and find conservators for various kinds of work. Thanks to everyone who worked on this project, including Ruth Seyler and Ryan Winfield in the AIC office, for making it happen.

Postprints 2016

Postprints from 2016 AIC Annual Meeting in Montreal have been turned in and are currently under review. We are continuing with recent practices, whereby two colleagues provide constructive feedback for the author before the papers move to copy editing. As in past years, we will be using an outside company for this part of the process. You can access published Postprints at http://resources.conservation-us.org/osg-postprints. Many thanks to Postprint editors Emily Hamilton and Kari Dodson for their work in making this happen and for moving it forward.

OSG Website – Improving our Web Presence within AIC's Website

OSG has recently accepted an AIC initiative and contributed funds to create our own OSG sub-site within the AIC website. This is a wonderful opportunity to increase our group's visibility and outreach to our group membership. The benefits of a new and improved site are many, including OSG member-restricted access to protected pages, custom navigation and dropdown menus, and links to postprints and other resources, among others. To this end, the OSG Group is looking for tech-savvy volunteers and members who are familiar with web design to help us with this endeavor. All volunteers would have the assistance of AIC staff to help plan, design, and execute our vision. All those interested are encouraged to contact me, Laura Lipcsei, OSG Group Chair, at laurali@rom.on.ca.

—Laura Lipcsei, OSG Group Chair, laurali@rom.on.ca

Paintings Specialty Group (PSG)

I hope everyone has kept cool this summer and are looking forward to the fall!

2017 AIC Annual Meeting

Our program committee, Kelly Keegan and Desi Peters, have been gearing up for our conference next year in Chicago. The call for papers is out: submit those abstracts! The overall theme of the conference is treatment, and it will be interesting to see what our colleagues are doing in their studios.

PSG Reserves Discussion

Soon I will start a discussion on PSG and then move it over to Memberfuse about spending down our reserves. AIC already has scholarship guideline suggestions that we can alter to our specific desires, if this is one of the things that we want to implement. Please take a minute to check out Memberfuse to be sure that your settings and notifications are up to date!

We have agreed to work with AIC on the website – for the grand total of $700 (PSG's share). It will take several months for the process to begin, but perhaps it will be ready by the time we are in Chicago!

If you have any comments or suggestions, please let me know by writing at noelle.ocon@ncdcr.gov or noelle.ocon@gmail.com.

—Noelle Ocon, PSG Chair, noelle.ocon@ncdcr.gov, noelle.ocon@gmail.com

Photographic Materials Group (PMG)

2017 PMG Winter Meeting

Registration is open for the next PMG Winter Meeting, which will be held at the Nelson-Atkins Museum in Kansas City, MO, February 10-11, 2017. A reception for all attendees, included in the base registration, will be held at the Nelson-Atkins Museum on February 10. Register on AIC website at http://www.conservation-us.org/pmgmeeting. Optional tours on February 9 are in development. Details will be posted on the website as planning progresses.

2017 AIC Annual Meeting

The online abstract submission portal is open and abstracts for the 45th Annual Meeting in Chicago are due by **11:59 p.m. on September 23, 2016**. The theme of the meeting is *Treatment 2017: Innovation in Conservation and Collection Care*. While proposals incorporating aspects of the general theme are strongly encouraged, the selection committee will also consider those that fall beyond the scope of treatment. Please consider sharing treatment experiences and other projects with your colleagues.

PMG Sub-site on AIC Website

Work will soon begin on the Specialty Groups' sub-sites within AIC's website. The benefits of a PMG sub-site are many, including more flexibility in posting our content, personalization of our site to increase member value, PMG-member-restricted access for protected resources (for example meeting minutes and treasurer's reports), etc. Please take the time to visit BPG's new demonstration site http://www.conservation-us.org/specialty-topics/book-paper/demo2016, and send us your comments and ideas. This is a great opportunity for us to build our site the way we want. We are looking for your input and feedback on what the page should look like and contain. Your participation in this project is indispensable. If you would like to take an active role in the design of the sub-site, please contact me directly at spenichon@artic.edu.

Candidates for New Officers

The PMG Nominating Committee is seeking candidates for the positions of Chair and Program Chair. The new officers begin their 2-year term after the Annual Meeting in Chicago. If you are interested, please contact members of the Committee: Barbara Brown, Sarah Freeman, or Alisha Chipman.

Tram, Saori, and I look forward to working with you this fall to prepare exciting programs and build a strong PMG. Please do not hesitate in contacting us if you have questions.

—Sylvie Pénichon, PMG Chair, spenichon@artic.edu

Research and Technical Studies (RATS)

2017 AIC Annual Meeting, Call for Papers

RATS seeks abstracts for the upcoming AIC Annual Meeting in Chicago; submissions of original work related the topics below are encouraged, although papers otherwise related to any aspect of research and technical studies of cultural heritage will be considered. Topics for 2017 may include:

- Two special joint sessions of Research and Technical Studies and Paintings and Research and Technical Studies and Book and Paper to explore technical studies and research related to both specialties (see CFP listings below)
- Technical studies of collection materials (other than paintings and book/paper artifacts)
- Scientific research devoted to conservation materials and treatment methodologies
- Development of new analytical techniques as applied to the study of cultural heritage collections
- Unexpected discoveries that have impacted conservation practice or the interpretation of cultural heritage

Please contact Kristin DeGhetaldi, RATS Program Chair (kdeghetal@yahoo.com) or Corina Rogge, RATS Assistant Program Chair (crogge@mfah.org) with any questions.

RATS and PSG Joint Session

PSG and RATS are pleased to announce a joint session at the upcoming AIC Meeting in Chicago. Theme-related talks for the PSG/RATS joint session should focus on case studies, collaborative projects, and practical applications of analytical findings. In addition to treatment-related talks, technical studies of artists' materials with regard to a single work or across an oeuvre will also be considered. Possible topics include, but are not limited to:

- Evaluation, analysis, and/or use of aqueous, solvent-based, dry, mechanical, and/or other cleaning methods (soft/rigid gels, silicone solvents, emulsions, erasers, laser cleaning, etc.)
- Evaluation and analysis of a change in a painting's materials and condition, and implications for treatment (metal soap formation, pigment fading, paint de-lamination, blanch/blooming, biological growth, efflorescence, etc.)
- Evaluation and analysis of previous and current treatment strategies, and materials used in treatment (proprietary materials, adhesives for lining/consolidation, surface coatings, stress/strain and mechanical testing of lining supports, etc.)

Please contact Kelly Keegan, PSG Program Chair (kkeegan@artic.edu) or Kristin DeGhetaldi, RATS Program Chair (kdeghetal@yahoo.com) with any questions.

RATS and BPG Joint Session

BPG and RATS are delighted to report a joint session at the upcoming AIC Meeting in Chicago, and we encourage treatment related research with a focus on case studies, collaborative projects, innovative technology, and practical applications of analytical findings. Possible topics include but are not limited to the evaluation and analysis of:

- Aqueous treatments, conductivity and pH
- Rigid gels for treatment of books and works on paper
- Silicone-based cleaning systems for water sensitive surfaces
- Treatment sequences, i.e., washing, bleaching (oxidation followed by reducing), and chelating agents
- Modern papers content (i.e., optical brighteners) and treatment

Please contact Victoria Binder, BPG Program Chair (vbinderbpg@gmail.com) or Kristin DeGhetaldi, RATS Program Chair (kdeghetal@yahoo.com) with any questions.

HOW TO SUBMIT AN ABSTRACT

The online abstract submission portal is now open. Submission guidelines are available at http://www.conservation-us.org/abstracts. When you have logged into the portal, choose "abstract submissions," which include both talks and posters.

PSG/BPG/RATS session submissions will follow the AIC system that allows authors to prioritize their application to participate in one of the three session types: All-Attendee (General), Specialty Group, or Poster. If you would like to submit an abstract to the PSG/RATS joint session, the BPG/RATS joint session, or the RATS session you must select each separate category when you submit your abstract.

The submission deadline for paper abstracts is **11:59 p.m. on Friday, September 23, 2016.**

Please note that RATS will produce a postprint of annotated powerpoint presentations from their sessions. These annotated powerpoint slides are due by **June 30, 2017**.

Full submission guidelines are available on the AIC's website at www.conservation-us.org/annual-meeting/call-for-submissions.

—Kristin de Ghetaldi, RATS Program Chair, kdeghetal@yahoo.com

Textile Specialty Group (TSG)

Thank You

This is my first newsletter as TSG Chair for 2016-2017 and I am looking forward to working with the TSG Board, Committee Chairs and Members this year. I especially want to thank Kate Sahmel who was such an excellent Chair last year. Kate helped me throughout the year with the Montreal Program, and she reached out to involve and include more members in TSG activities, which resulted in a busy and productive year. Another sincere thanks to everyone who helped me as Program Chair with planning for the Textile Sessions in Montreal and special thanks to all of our great speakers!

Although the 2016 Annual Meeting and TSG Business Meeting have now passed, I hope that members who couldn't make the meeting have had the opportunity to read Kate's summary of our Business Meeting in the July TSG Specialty Group column. You can always access old columns through the AIC News Online Archive. If you have questions about TSG Business or want to become more involved in TSG, please don't hesitate to contact me.

2017 AIC Annual Meeting

Laura Mina is TSG Program Chair for our 2017 Sessions in Chicago. We know that the meeting's theme "*Treatment 2017: Innovation in Conservation and Collection Care*" will inspire many of you to submit abstracts! By now you have likely seen the Call for Papers several times, and Laura will make a sustained effort to energize you to participate in the Chicago Meeting!

Further details about the theme, the three types of programming for which topics can be submitted, and the link to the online portal for submissions of abstracts and proposals can be found in AIC's website at www.conservation-us.org/annual-meeting/call-for-submissions. Please have a look at the meeting information as it will help you see where your work fits into the theme and why you should register early for Chicago.

If you need further information related to textiles programming contact Laura: laura.mina@metmuseum.org

—Kathy Francis, TSG Chair, kfrancis@francistextile.com

Wooden Artifacts Group (WAG)

I hope that you are all enjoying the last few days of summer! This month's column is just a short reminder regarding planning ahead for our next annual meeting.

2017 AIC Annual Meeting

AIC's 45th Annual Meeting will be held May 28 through June 1, 2017, in Chicago. Chicago is a fantastic city to visit and will certainly attract a large crowd, eager to learn and share knowledge about this year's theme "Treatment 2017: Innovation in Conservation and Collection Care."

Our new incoming WAG Program Chair, Genevieve Bieniosek, is well underway developing our programming for the Chicago meeting. In addition to the Wooden Artifacts session, we will also be holding a joint session with ASG. The submission deadline for 500-word maximum paper abstracts, workshop proposals, and pre-session programming is **11:59 p.m. on Friday September 23, 2016**.

Please contact Genevieve Bieniosek, WAG Program Chair (gbieniosek@gmail.com), or Andrew Fearon, ASG Program Chair (afearon@mccollab.com) with any questions regarding the abstract submission process.

As always, please feel free to contact me with any WAG related questions, concerns or thoughts you would like to share.

See you all in Chicago if not sooner!

—Tad Fallon, WAG Chair, tfallon1024@comcast.net

Note: ASG did not submit a column for this issue.

Network Columns

Collection Care Network (CCN)

"Yes to 20!"

Many of you may have seen the recent thread posted by Becky Fifield, CCN Chair, on MemberFuse. For those who haven't, please take a moment to consider "Yes to 20!"

What does this mean? "Yes to 20!" is the informal mantra of CCN and refers to AIC's Guideline for Practice #20 in our core documents. Guideline #20 indicates that "[t]he conservation professional should recognize the critical importance of preventive conservation as the most effective means of promoting the long-term preservation of cultural property." The correlating Commentary further elaborates that "[p]reventive conservation is an ongoing process that continues throughout the life of cultural property, and does not end with interventive treatment."

Central to the work of the CCN is furthering the sustainable management of collections. The argument for ongoing investment in preventive conservation systems focuses on preventing damage that may require treatment to make the collection accessible again. In many organizations, conservation has become largely linked to exhibitions and outgoing loans that prompt intense cycles of costly interventive treatment. Commentary #20, approved by the AIC Board in October 1997, indicates the rationale of preventive conservation as "[t]o defer, reduce, or eliminate the need for interventive treatment" and "[t]o extend the effectiveness of interventive treatment."

This goal is a call to action and charges collection care

professionals with the responsibility to strive to work ever smarter, not harder. Shifting our mindset in collection care to a risk management approach and embracing innovation in strategic collection care protects the value of treatment and limits the need for subsequent intervention. I urge you to read and consider the post in its entirety (http://aichaw.mymemberfuse.com/groups/discussion/view/topic/39359/group/8878), as it dovetails into the 45th Annual Conference's theme.

2017 AIC Annual Meeting: Call for Papers

CCN seeks abstracts for the 45th Annual Meeting, to be held in Chicago, May 28 through June 1, 2017.

Abstracts for the Collection Care Session may be related to the overall 2017 AIC meeting theme, "Treatment 2017: Innovation in Conservation and Collections Care," or address any other aspect of collection care. Please visit our website for further ideas and information at www.conservation-us.org/specialty-topics/collection-care.

The 2017 Annual Meeting theme may be expanded to address:

- Decisions about items, collections, or risks that fit within and contribute to a continuum of strategic collection care
- The "treatment of risk" approach to lessening threats to collections
- Collection care programs intended to enhance the utility and prolong the lifetime of cultural property
- Effective collection care strategies that reduce the need for interventive treatments

Abstracts are due **by 11:59 p.m. on September 23, 2016** and the guidelines for submission can be found on AIC's website at www.conservation-us.org/annual-meeting/call-for-submissions. We look forward another session of compelling, inspired talks and rousing Q&A in Chicago!

—Becky Kaczkowski, Editor, Collection Care Network, KaczkowskiR@si.edu

Note: ECPN did not submit a column for this issue.

Courses, Conferences, and Seminars

FAIC PROFESSIONAL DEVELOPMENT COURSES

The following courses are presented with funds from the FAIC Endowment for Professional Development, which is supported by The Andrew W. Mellon Foundation and by contributions from members and friends of AIC. Full descriptions and registration forms are available on the FAIC website at www.conservation-us.org/courses, or from the FAIC Office: (202) 661-8071 or courses@conservation-us.org.

A full list of professional development scholarships is available at www.conservation-us.org/grants.

FAIC 2016 Calendar of Events

Basic Condition Reporting, September 15, 2016, 2:00-3:30 p.m. ET, Online course
A Connecting to Collections Care webinar (www.connectingtocollections.org)

Managing Previously Unmanaged Collections: A Survival Guide, September 22, 2016, 2:00-3:30 p.m. ET, Online course
A Connecting to Collections Care webinar (www.connectingtocollections.org)

There's a Form for That: Documenting Your Collections, September 29, 2016, 2:00-3:30 p.m. ET, Online course
A Connecting to Collections Care webinar (www.connectingtocollections.org)

Conducting a Collection Inventory, October 4, 2016, 2:00-3:30 p.m. ET, Online course
A Connecting to Collections Care webinar (www.connectingtocollections.org)

Collections Care in Archives, October 20, 2016, 2:00-3:30 p.m. ET, Online course
A Connecting to Collections Care webinar (www.connectingtocollections.org)

Food in Museums (working title), November 3, 2016, 2:00-3:30 p.m. ET, Online course
A Connecting to Collections Care webinar (www.connectingtocollections.org)

Illumination of Collections: Optimization of the Visual Experience, November 10, 2016, National Gallery of Art, Washington, DC
Presented with support by a grant from the National Endowment for the Humanities

Cleaning and Conductivity: New Methods for Treating Paintings, Works on Paper, and Textiles, December 7-9, 2016, Lunder Conservation Center, American Art Museum, Washington, DC
Presented with support by a grant from the National Endowment for the Humanities

What's New in the World of Wireless Monitoring (working title), December 8, 2016, 2:00-3:30 p.m. ET, Online course
A Connecting to Collections Care webinar (www.connectingtocollections.org)

Photographic Chemistry for Preservation, Fall 2016, dates TBA, Online course
Collaborative Workshops in Photograph Conservation series presented with support from The Andrew W. Mellon Foundation; created with funding from the National Endowment for the Humanities

Alliance for Response Webinars, Fall 2016, titles and dates TBA
Presented with support by a grant from the National Endowment for the Humanities

FAIC Courses Planned for 2017

The Conservation of Archaeological Iron, April 18-21, 2017, Williamsburg, VA

The Conservation of Archaeological Iron, April 24-27, 2017, Williamsburg, VA

Approaches to the Conservation of Contemporary Murals, May 28-29, 2017, Chicago, IL

Illumination of Collections on Exhibit: Optimization of the Visual Experience, May 29, 2017, Chicago, IL

AIC Annual Meeting Workshops, May 28-29, 2017, Chicago, IL

Preventive Conservation, Summer 2017, Annandale-on-Hudson, NY

Salted Paper Prints: Process and Purpose
Workshop: September 13, 2017, Northeast Document Conservation Center, Andover, MA
Symposium: September 14-15, 2017, Harvard University, Cambridge, MA
Presented with support from The Andrew W. Mellon Foundation fund for Collaborative Workshops in Photograph Conservation and a grant from the National Endowment for the Humanities

Cleaning and Conductivity: New Methods for Treating Paintings, Works on Paper, and Textiles, 2017 dates TBA, Amon Carter Museum of American Art, Fort Worth, TX

Mastering Inpainting, 2017, dates TBA, Mt. Carroll, IL
Presented by the International Preservation Studies Center, co-sponsored by FAIC

Visit www.conservation-us.org/current-courses for more information.

Calls for Papers

Submission Deadline: Oct 1, 2016. Conservators of the Baltic States, *11th Triennial Meeting for Conservators of the Baltic States, Changing Contexts: from Environment to Ideas,* Estonia, Tartu. (Conference Dates: May 24-27, 2017)
Info: www.eestikonservaator.ee/triennial2017/

Submission Deadline: Oct 1, 2016. Ministerio de Economia y Cometitvdad, Universitat Politecnica de Valencia, Instituto de Restauracion del Patrimono, *SOS Tierra 2017: International Conference on Vernacular Earthen Architecture, Conservation and Sustainability,* Valencia, Spain. (Conference Dates: Sep 14-16, 2017)
Info: http://sostierra2017.blogs.upv.es/home/

Submission Deadline: Oct 28, 2016. The Australian Institute for Conservation of Cultural Materials (AICCM), Objects and Electron Special Interests Groups, *The Shock of the New: Modern Materials, Media and Methods,* Melbourne, Australia. (Conference Dates: Feb 8-10, 2017)
Contact: kpalmer@museum.vic.gov.au

Submission Deadline: Oct 31, 2016. University of Applied Sciences and Arts (HAWK), *Materials and Methods for the Consolidation of Cultural Heritage: An Interdisciplinary Dialogue,* Hildesheim, Germany. (Conference Dates: Jan 25-27, 2018)
Info: www.hornemann-institut.de/english/2353.php
Contact: Dr. Angela Weyer, Director of the Hornemann Institute, HAWK University of Applied Sciences and Arts, Hildesheim/Holzminden/Goettingen, Hornemann Institute, Kardinal-Bertram-Strasse 36, 31134 Hildesheim, Germany, Tel: +49 5121 408179

Submission Deadline: Oct 31, 2016. Canadian Association for Conservation of Cultural Property (CAC-ACCR), *43rd Annual CAC-ACCR Conference and Workshops*, Regina, Saskatchewan, Canada. (Conference dates: Jun 6-10, 2017)
Info: www.cac-accr.ca/conferences

Submission Deadline: Dec 16, 2016. Foundation of the American Institute for Conservation (FAIC), *Salted Paper Prints: Process and Purpose,* Cambridge, MA, USA. (Conference Dates: Sep 14-15, 2017)
Info: www.conservation-us.org/courses/professional-development-courses/current-courses/salted-paper-prints-symposium-and-workshop/salted-paper-prints-call-for-papers

Conference Announcements

GENERAL

Sep 29, 2016. University of Antwerp, *Study Collections: A Challenging Context for Museums and Universities,* Antwerp, Belgium.
Contact: Natalie Ortega Saez, University of Antwerp, Faculty of Design Sciences Conservation Studies, Blindestraat 9, B-2000 Antwerp; Tel: +32 (3) 213-7134 or +32 (496) 264943; Fax: +32 (3) 213 71 35. E-mail: natalia.ortegasaez@uantwerpen.be
Info: www.uantwerpen.be/nl/faculteiten/ontwerpwetenschappen/in-de-kijker/studiedag-studiecoll/inschrijven/

Sep 30-Oct 2, 2016. The Initiative for Heritage Conservation (IHC), *3rd IHC International Conference in Heritage Management,* Elefsina, Greece.
Info: www.inherity.org/3rd-conference/

Oct 5-6, 2016. The Tate, City and Guilds of London Art School and The Institute of Conservation Gilding and Decorative Surfaces Group, *Auricular Style: Frames,* London, UK.
Info: http://auricularstyleframes.wordpress.com

Oct 6-8, 2016. University of Pennsylvania, *Engaging Conservation: Collaboration Across Disciplines*, Philadelphia, PA, USA.
Contact: Nina Owczarek, Williams Associate Conservator, Penn Museum, 215-898-5889

Oct 12-14, 2016. National Museum of Agriculture and Food Industry, *Problems connected with Keeping and Conservation of Collections in Museums,* Szreniawa, Poland.
Info: http://www.muzeum-szreniawa.pl/imuzeum/web/app.php/vortal/vii_miedzynarodowa_konferencja_konserwatorska_problemy_muzeow_zwiazane_z_zachowaniem_i_konserwacja_zbiorow.html

Oct 17-18, 2016. University of Cambridge Museums (UCM), *Managing Indoor Climate Risks,* Cambridge, UK.
Info: www.museums.cam.ac.uk/care-conservation/collections-care-conservation-professional-events

Oct 23-27, 2016. Materials Science and Technology, *Materials Science and Technology 2016, Art and Cultural Heritage: Discoveries and Education,* Salt Lake City, UT, USA.
Info: http://bit.ly/1M7FOau

Oct 24-25, 2016. Museum Conservation Institute, Smithsonian Institution and the Royal Danish Academy of Fine Arts, *The Mechanics of Art Materials and its Future in Heritage Science,* Suitland, MD, USA.
Info: https://www.eventbrite.com/e/the-mechanics-of-art-materials-and-its-future-in-heritage-science-a-seminar-and-symposium-tickets-26752983895

Nov 3-4, 2016. University of Michigan, *Symposium: The Flood in Florence, 1966: A Fifty Year Retrospective,* Ann Arbor, MI, USA.
Info: www.lib.umich.edu/flood-florence-1966-fifty-year-retrospective

Nov 4-5, 2016. British Museum, *African Rock Art: Research, Digital Outputs and Heritage Management*, London, UK.
Info: https://africanrockartconference.com/

Nov 14-15, 2016. Museum Next, *Transformation*, New York City, NY, USA.
Info: www.museumnext.com/conference/museum_conference_usa/

Nov 15-18, 2016. National Trust for Historic Preservation, *National Preservation Conference PastForward 2016,* Houston, TX, USA.
Info: www.PastForwardConference.org

2017

Jan 27-28, 2017. Polytechnic University of Valencia (UPV) and Subdireccion de Conservacion, Restauracion e Investigacion IVC+R de CulturArts Generalitat Valenciana, *Paintings on Copper (and Other Metal Plates): Production, Degradation and Conservation Issues,* Valencia, Spain.
Info: conservacion&restauracion@upv.es

Feb 8-10, 2017. The Australian Institute for the Conservation of Cultural Materials (AICCM), Objects and Electron Special Interest Groups, *The Shock of the New: Modern Materials, Media and Methods,* Melbourne, Australia.
Info: kpalmer@museum.vic.gov.au

Feb 15-17, 2017. Museum Next, *Risk*, Melbourne, Australia.
Info: www.museumnext.com/conference/museumnext-melbourne/

Mar 15-17, 2017. Architectural Paint Research, *6th International Architectural Paint Research Conference,* New York, NY, USA.
Info: www.apr2017.org/registration/

May 7-10, 2017. American Alliance of Museums, *AAM Annual Meeting*, St. Louis, MO, USA.
Contact: proposal@aam-us.org

May 24-27, 2017. Conservators of the Baltic States, *The 11th Triennial Meeting for Conservators of the Baltic States, Changing Contexts: from Environment to Ideas,* Estonia, Tartu.
Info: www.eestikonservaator.ee/triennial2017/

May 28-June 1, 2017. American Institute for Conservation of Historic & Artistic Works (AIC), *45th Annual Meeting, Treatment 2017: Innovation in Conservation and Collection Care*, Chicago, IL, USA.
Info: www.conservation-us.org/meeting

Jun 6-10, 2017. Canadian Association for Conservation of Cultural Property (CAC-ACCR), *43rd Annual CAC-ACCR Conference and Workshops*, Regina, Saskatchewan, Canada.
Info: www.cac-accr.ca/conferences

Jun 8-9, 2017. Association des Preventeours Universitaires – Conservation du Patrimonie, (APrevU), *Conference on the Development of Preventive Conservation in France,* Paris, France.
Info: http://aprevu.com/2016/06/11/appel-a-contribution/

Oct 16-18, 2017. International Academic Projects and the Tate Gallery, *Gels in Conservation,* London, UK.
Info: www.eestikonservaator.ee/triennial2017/

2018

Jan 25-27, 2018. University of Applied Sciences and Arts (HAWK), *Materials and Methods for the Consolidation of Cultural Heritage: An Interdisciplinary Dialogue*, Hildesheim, Germany.
Info: www.hornemann-institut.de/english/2353.php
Contact: Dr. Angela Weyer, Director of the Hornemann Institute, HAWK University of Applied Sciences and Arts, Hildesheim/Holzminden/Goettingen, Hornemann Institute, Kardinal-Bertram-Strasse 36, 31134 Hildesheim, Germany, Tel: +49 5121 408179

ARCHITECTURE

Sep 26-30, 2016. ICOM-CC Metals Working Group, *Metal 2016,* New Delhi, India.
Info: www.metals2016.org

Oct 30-Nov 2, 2016. Architectural Preservation Technology (APT), *Preserving Heritage with Tomorrow's Technology,* San Antonio, TX, USA.
Info: www.conferenceabstracts.com/cfp2/login.asp?EventKey=XEYDVWOP

2017

Sep 14-16, 2017. Ministerio de Economia y Cometitvdad, Universityat Politecnica de Valencia, Instituto de Restauracion del Patrimono, *SOS Tierra 2017: International Conference on Vernacular Earthen Architecture, Conservation and Sustainability,* Valencia, Spain.
Info: http://sostierra2017.blogs.upv.es/home/

BOOK & PAPER

Oct 5, 2016. The Conservation Center for Art and Historic Artifacts and the Newberry Library, *The Next Chapter: Rare Books in Modern Times*, Chicago, IL, USA.
Info:http://events.r20.constantcontact.com/register/event?oeidk=a07ecjhf3ls5727773a&llr=ys9myawab

Oct 5-6, 2016. The Vatican Library, *Preservation and Conservation of Japanese Archival Documents in the Vatican Library: The Marega Collection as a Case Study,* Rome, Italy.
Info: workshop.marega@vatlib.it

Oct 24-28, 2016. Georgia Archives, *Cloth Case Bindings: Their History and Repair,* Morrow, GA, USA.
Info: jeffrey.peachey@gmail.com

Dec 8-12, 2016. The Fitzwilliam Museum, *Manuscripts in the Making: Art and Sciences,* Cambridge, UK.
Info: www.fitzmuseum.cam.ac.uk/colour/conference
Contact: Paola Ricciardi, PhD, Research Associate, Department of Manuscripts and Printed Books, The Fitzwilliam Museum, Senior Member, Hughes Hall, Trumpington Street, Cambridge, CB2 1RB, Tel: +44 1223 748172

2017

May 3-5, 2017. International Association for Book and Paper Conservators (IADA), *From Generation to Generation: Sharing Knowledge, Connecting People,* Oslo, Norway.
Info: info@iada-home.orgx

ELECTRONIC MEDIA

Sep 26-28, 2016. NEDCC presents *Digital Directions: Fundamentals of Creating and Managing Digital Collections,* Denver, CO, USA.
Info: https://www.nedcc.org/preservation-training/digital-directions/dd-2016

OBJECTS

Sep 26-30, 2016. Indira Gandhi National Center for the Arts, *Metal 2016,* New Delhi, India.
Info: http://www.metals2016.org/workshops.htm

Oct 29-30, 2016. Koc University Research Center or Anatolian Civilizations (RCAC), *Talking Heavy: Site Conservation, Documentation and Presentation of Heavy Heritage in the Mediterranean Basin,* Istanbul, Turkey.
Info: https://rcac.ku.edu.tr/en/workshop-talking-heavy

Nov 7-10, 2016. The Rijksmuseum, *Ship model conservation course: Understanding techniques for research and conservation,* Amsterdam, The Netherlands.
Info: https://www.rijksmuseum.nl/en/ship-models

PAINTINGS

Sep 29-30, 2016. ICOM Paintings, Preventive Conservation and Documentation WG, *ICOM-CC Joint Interim Meeting on Physical Issues in the Conservation of Paintings: Monitoring, Documenting and Treatment,* Paris, France.
Info: http://merovingio.c2rmf.cnrs.fr/icom-cc/Call_for_Abstracts_Physical_Issues_Paintings.pdf

Oct 7, 2016. The British Association of Picture-Restorer Conservators (BAPCR), *A Changing Art: Nineteenth-Century Painting Practice and Conservation,* London, UK.
Info: bapcrsecretary@gmail.com

Oct 20-21, 2016. SRAL, *Wood Science and Technology II: Microclimates for Panel Paintings,* Maasstricht, The Netherlands.
Info: www.icon.org.uk
Contact: Kate Seymour (k.seymour@sral.nl) and Siska Losse (s.losse@sral.nl)

Nov 25, 2016. The Tate Gallery and The Clothworkers' Foundation, *Picasso Picabia Ernst*, London, UK.
Info: www.tate.org.uk/whats-on/tate-britain/conference/symposium-picasso-picabia-ernst

PHOTOGRAPHIC MATERIALS

Sep 15-16, 2016. The Royal Photographic Society, *International Symposium on Technologies for Digital Photo Fulfillment, in Conjunction with Printing for Fabrication 2016,* Manchester, UK.
Info: www.imaging.org/ist/conferences/tdpf

Sep 21-24, 2016. ICOM-CC Photographic Materials WG, *Uniques & Multiples, Triennial Meeting 2016,* Amsterdam, The Netherlands.
Info: www.rijksmuseum.nl/en/icom-cc.pmwg

2017

Feb 10-11, 2017. American Institute for Conservation and Photographic Materials Group, *Biannual PMG Winter Meeting*, Kansas City, MO, USA.
Info: http://www.conservation-us.org/pmgmeeting

RESEARCH & TECHNICAL STUDIES

Nov 8-11, 2016. Stichting Restauratie Atelier Limburg and Bonnefantenmuseum, *XRF Boot Camp for Conservators,* Maastricht, The Netherlands.
Info: http://www.getty.edu/conservation/our_projects/education/xrf/2016_xrf.html

Nov 15-16, 2016. New York Conservation Foundation and the Eastern Analytical Symposium, *22nd NYCF Conservation Science Annual,* Somerset, NJ, USA.
Info: http://easinc.org/wordpress/?page_id083

Nov 27–Dec 2, 2016. Materials Research Society (MRS), *Fall Meeting – TC3 Materials Issues in Art and Archaeology,* Boston, MA, USA.
Info: http://www.mrs.org/fall2016

TEXTILES

Oct 24-Nov 11, 2016. ICCROM, *Conserving Textiles and Costumes in South East Asian Collections,* Antigua, Guatemala.
Contact:Via di San Michele, 13, 00153 Rome, Italy +39 06 58 55 34 10, Fax: +39 06 58 55 33 49
Info: http://www.iccrom.org/

2017

Nov 6-11, 2017. North American Textile Conservation Conference (NATCC), *Embellished Fabrics: Conserving Surface Manipulation and Decoration, 11th North American Textile Conservation Conference,* Mexico City, Mexico.
Info: http://natcconference.com/

WOODEN ARTIFACTS

Nov 18-19, 2016. Stichting Ebenist, *13th International Symposium on Wood and Furniture Conservation, Material imitation and imitation materials in furniture and conservations,* Amsterdam, The Netherlands.
Contact: info@ebenist.org

NEW COURSE LISTINGS

A complete listing of CCS courses, institutions that offer courses of interest to conservation professionals, and contact information is available online at http://cool.conservation-us.org/cool/aicnews/courses-and-workshops.

Adventures in Preservation (AiP)
1557 North Street
Boulder, CO, 80304 USA
Tel: +1 (303) 444-0129
http://adventuresinpreservation.org/

2017 Hands-on Sessions:
May 28 – Jun 10, 2017. *Save the Crumbling Cracker House (St. Joseph, MO, USA)*
May 22 – Sep 7, 2017. *Building Documentation in Kumayri Cultural Museum-Preserve (Gyumri, Armenia)*
Jun 4 – 17, 2017. *Restoring a Greenhouse to Grandeur (Moray, Scotland)*
Aug 13-27, 2017. *Chateau Conservation Projects (Dole, France)*
Sep 2017. *Traditional French Upholstery (Dole, France)*

American Academy of Bookbinding
117 North Willow Street
Telluride, CO 81435 USA
Tel: +1 (970) 728-8649
E-mail: aab@ahhaa.org
www.bookbindingacademy.org

Sep 26-Oct 7, 2016. *Intermediate/Advanced Fine Leather Binding*
Oct 10-21, 2016. *Fall Master Class – Binding in Box Calf/Doublure in Suede*
Oct 24-28, 2016. *The Gold Standard – Edges and Surfaces*
Oct 31-Nov 4, 2016. *Stamping & Tool Maintenance*

Canadian Conservation Institute (CCI)
1030 Innes Road
Ottawa, Ontario K1B 4S7, Canada
Telephone: +1 (613) 998-3721
or Toll-free in Canada: 1-866-998-3721
Fax: +1 (613) 998-4721
TTY/TDD: 819-997-3123
www.cci-icc.gc.ca/index-eng.aspx

Oct 17-21, 2016. *Cleaning of Painted Surfaces*
Oct 24-28, 2016. *Conservation of Glass*

ICCROM
Via di San Michele, 13
00153 Rome, Italy
+39 06 58 55 34 10
Fax: +39 06 58 55 33 49
Website: http://www.iccrom.org/category/course-announcement/

Oct 17-28, 2016. *Heritage Impact Assessments (Location TBA)*
Oct 24-Nov 11, 2016. *Conserving Textiles and Costumes in South East Asian Collections (Antigua, Guatemala)*

Image Permanence Institute (IPI)
Rochester Institute of Technology
GAN-2000
70 Lomb Memorial Dr
Rochester, NY 14623 USA
Tel: +1 (585) 475-5199
E-mail: ipiwww@rit.edu
www.imagepermanenceinstitute.org

Oct 25 – 27, 2016. *Digital Print Preservation Workshop 2016-Preservation of Digitally Printed Materials in Libraries, Archives and Museums at its facilities in Rochester, NY, USA*

International Academic Projects
1 Birdcage Walk, London, SW1H 9JJ, UK
Tel: (44) 207 380 0800
email: info@academicprojects.co.uk
www.academicprojects.co.uk

Oct 3-4, 2016. *Chemistry for Conservators (London)*
Oct 3, 2016. *Watercolours: Examination, Processes and Care (Tate, London)*

Oct 6, 2016. *Sustainable Climate Control for Collections (London)*
Oct 7, 2016. *Museum Lighting from Theory to Practice (London)*
Oct 10, 2016. *Introduction to Laser Cleaning in Conservation (Manchester)*
Nov 2, 2016. *Identification of Insect Pests in Collections (Tate, London)*

International Preservation Studies Center
(Formerly known as the Campbell Center for Historic Preservation Studies)
Matthew Toland, Executive Director
203 E Seminary Street
Mount Carroll, IL 61053 USA
Tel: +1 (815) 244-1173
E-mail: toland@preservationcenter.org
www.preservationcenter.org

Sep 20-23, 2016. *Historic Interior Plaster: Restoration and Preservation*
Sep 26-28, 2016. *Passive Wood Floor Restoration*
Sep 29-Oct 1, 2016. *Historic Window Restoration*
Oct 3-5, 2016. *Methods and Materials for Historic Preservation*
Jan 10-12, 2017. *Wood Identification Workshop*

National Preservation Institute
P.O. Box 1702
Alexandria,VA 22313 USA
Tel: +1 (703) 765-0100
E-mail: info@npi.org
www.npi.org

Oct 18-20, 2016. *Cemetery Preservation and Cemetery Landscapes: A Practical Guide to Care and Maintenance (Austin, TX)*
Dec 5-9, 2016. *Archaeological Curation and Collections Management and Conservation Strategies for Archaeologists (Washington, DC)*
Any/Onsite. *Digital and Film Photography of Cultural Resources*

Northeast Document Conservation Center
100 Brickstone Square
Andover, MA 01810 USA
Tel: +1 (978) 470-1010
E-mail: info@nedcc.org
www.nedcc.org

Webinars 2016:
Oct 4, 2016. *Caring for Paper-based Collections*
Oct 12, 2016. *Introduction to Digitization Standards*
Oct 25, 2016. *Caring for Photographic Collections*
Oct 26, 2016. *Digitizing Photographic Collections*
Nov 16, 2016. *Caring for Rare Books*
Dec 1-2, 2016. *Writing a Disaster Plan Course (2 sessions)*
Dec 7, 2016. *Caring for Framed Collections*
Webinars 2017:
Jan 11, 2017. *Caring for Textiles*
Jan 17, 2017. *Selection for Digitization*
Feb 8, 2017. *Environmental Monitoring*
Feb 15, 2017. *Caring for Architectural Records*
Feb 21, 2017. *Assessing Your Digital Preservation Readiness*
Mar 1, 2017. *Writing Your Preservation Assistance Grant*
Mar 3, 2017. *Writing Your Preservation Assistance Grant*
Mar 21, 2017. *Funding and Fundraising*
Mar 28, 2017. *Moving and Renovating: Collection Concerns*
Apr 4, 2017. *Caring for Digital Media*
Apr 25, 2017. *What is Preservation?*
Apr 26, 2017. *Assessing Your Preservation Practices*
Apr 27, 2017. *Writing a Preservation Plan*
May 9, 2017. *Coping with Pests and Mold*
May 16, 2017. *Creating Useful Digital Objects*
May 23, 2017. *Caring for Scrapbooks*
May 24, 2017. *Digitizing Scrapbooks*
Jun 1-Aug 24, 2017. *Preservation 101 Course (10 sessions)*

San Gemini Preservation Studies: International Institute for Restoration and Preservation Studies
203 Seventh Avenue
Brooklyn, NY 11215 USA
US Tel: +1 (718) 768-3508 (Sep to May)
Italy Tel: +39 (342) 692-1504 (May to Sep)
E-mail: Prof. Max Cardillo at mcardillo@iirpsemail.org for academic information, or Polly Withers at pwithers@iirpsemail.org for application information
www.sangeministudies.org

May 29-Jun 23, 2017. *Session 1*
Program A – Touching the Stones: Restoration and Analysis of Historic Buildings

Program B – Restoration and Analysis of Archaeological Ceramics

Program C – The Craft of Making and Restoring Book Bindings

Jun 25-Jul 4, 2017. *Intersession*
Field Trip 1 – Preservation Tour: Siena, Florence and Rome

Jul 10-Aug 4, 2017. *Session 2*
Program D – Paper Restoration in Books and Archival Documents

Program E – Traditional Painting: Materials, Methods and Art Restoration Issues

West Dean College
Conservation Short Course Organizer
West Dean, Chichester
West Sussex PO18 0QZ UK
DDI: +44 1243 818219
E-mail: cpd@westdean.org.uk
www.westdean.org.uk/BCM or www.westdean.org.uk/OMC

2017 Conservation Short Courses:
Jan 30-Feb 2, 2017. *Specifying Conservation Works*
Feb 6-9, 2017. *Architectural and Structural Metalwork*
Feb 20-23, 2017. *Conservation of Transport*
Feb 27-Mar 2, 2017. *Conservation of Plastics*
Mar 6-9, 2017. *Filling and retouching of three-dimensional objects*
Mar 27-30, 2017. *Masonry Ruins*
Apr 3-6, 2017. *Structural Repair*
Apr 24-27, 2017. *Slate and Stone Roofing*
May 8-11, 2017. *Timber*
May 22-25, 2017. *Brick and Flint Masonry*
May 30-Jun 2. *Plasters and Renders*
Jun 5-8, 2017. *Conservation of Arms and Armour*
Jun 12-15, 2017. *Historic Concrete*
Jul 10-13, 2017. *Environment: Effective monitoring and management*
Sep 18-21, 2017. *Conservation of Botanical Collections*
Sep 25-28, 2017. *Stone Masonry*

Calls for Papers, Conferences, Seminars, and Courses
are continually updated and can be found online at resources.conservation-us.org/aicnews/calendar-listings.