Conservators and Refinishers: Finding Common Ground

By Donald C. Williams

When you get past the superficial distinctions, says Don Williams, the activities of refinishers and conservators bear remarkable similarities. Given that fact, says this prominent conservator, there's tremendous potential benefit in a meeting of the minds between the two groups – a thought that motivated him to accept *Professional Refinishing*'s invitation to make this presentation during our recent conference.

My friend, the economist Walter Williams, tells me that stereotypes are extraordinarily efficient things: They allow us to reach conclusions without actually having to expend any resources of time, energy or thought to get there. They are so efficient and ingrained that we human beings use them every day, and in fact we invent them routinely to help us sort things out.

But there is a drawback. Stereotypes may be useful for coming to conclusions, but they're less useful if our goal is to come to the correct conclusions. That takes time, energy, and thought. Since we humans are all in the business of creating stereotypes, we're consequently in the business of building false barriers. Not that the barriers do not really exist, but the reasons for their existence are artificial and arbitrary and therefore removable simply by choice. In other words, to get rid of the "us" and the "them," all we have to do is say, "Be gone!"

As I said, however, some of these barriers are real and others are not only real but deserved. We in the museum field have undoubtedly encountered some "restorers" whose ignorance is legion and whose attitudes are Philistine. And certainly, I have colleagues within the museum field who consider themselves to be members of an anointed priesthood, committed to making sure everyone they deal with knows how smart, educated, important and righteous they are. I am happy to report, however, that my experience has shown that these egregious instances are relatively rare – but they are real and do poison the atmosphere for everyone.

CLEARING THE AIR

With a desire to be anything but toxic, I have identified three distinct areas where what I do in the museum and what you do as professionals in the private sector are not only compatible; they may be, at their conceptual base, identical. These three areas are: 1) what we are trying to accomplish; 2) what we need to know in order to accomplish it; and 3) what we need to use on order to be successful.

What are we trying to accomplish regarding finishing and refinishing? The function of a finish is two-fold: First, it protects the wood, and second, it alters the appearance of the wood. For new finishes, this is a complete, accurate summary, but for old finishes there is a third function, which is to provide information about the history of furniture and finishes as documents of our past.

For this reason, there are constraints on what is appropriate when it comes to treating historic furniture. It is critical, therefore, that there be a distinction between dealing with new finishes on new furniture, where virtually anything is acceptable, and finishes on historic objects, where many diverse and limiting factors must be taken into consideration.

The goal of conservation is to stabilize and preserve artifacts. Each artifact is different in terms of materials, construction, history, condition and end use, so each treatment situation is unique. And this is true for all artifacts, whether they are paintings, sculpture, furni-

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ture or any other object of historic or artistic importance.

Because of these individual differences, there are no rote methods, no "how-to" recipe book treatments that will work in all cases. In fact, there is very little written in general about furniture-conservation treatments. In the few articles that do discuss treatments, the information presented is intended to be appropriate only for the specific application cited by the author.

Rather than having strict "do" and "don't" rules, we rely instead on the abilities and experience of the practitioner to make correct judgments within broad guidelines. These general guidelines revolve around respecting the historic, physical and aesthetic integrity of the object and dictate that every effort should be made to preserve that integrity.

This means trying to leave the object as undisturbed as possible while ensuring the long-term stability, function and preservation of that object. Thus, a balance is always sought between stabilization and restoration, a balance that may require alteration of the piece as it currently exists while preserving the historic information contained in the piece being treated. For example, how was the piece fabricated, and how has it been treated since then?

DEFINING A BALANCE

It follows that some general conclusions can be reached about furniture preservation that direct all treatment procedures, including finishes. First and foremost, existing finishes should be left in place unless they are clearly inappropriate to the object or so badly degraded that they do not serve the three functions outlined earlier in this article: altered appearance, protection and historical record.

On the whole, we must involve ourselves in implementing a multi-faceted approach for stabilizing and preserving furniture. As such, it is different than restoration, or the physical repair of existing damage. While restoration or refinishing certainly may be part of the process, in many instances it is not as important as an understanding of the nature of the materials and their deterioration and preservation. Interpreting, preserving, protecting and restoring finishes on historic furniture is, in other words, one goal within the larger framework of furniture preservation.

Clearly, the title of this article suggests that furniture conservators and restorers share common objectives across a broad spectrum of experience based on honest good will.

The commercial restorer or refinisher who doesn't agree at least in principle with the previous statements, or doesn't care about the implications of their work when it comes to the preservation of personal, family and social history is, in my experience, a rare bird. Not all of these practitioners are well skilled, well trained or well informed, but neither are they mendacious. And I cannot think of any instance where my dealings with commercial refinishers have been met with anything less than courtesy and thanks for pulling the curtain back a little more.

On the other hand, every furniture conservator I know (and I'm pretty sure I know almost all of them) recognizes the truth that objects have purpose, a sense of function. Those purposes and functions may change depending on the specific circumstances, but they exist. Inside the museum, the function and purpose is often just to stand there and look a certain way and bear the evidence of history. Outside the museum, the functions can be and often are utilitarian: The chair actually has to hold a large adult safely, the dining table actually has to resist the attacks of food, alcohol, pets and kids. These are very real limits and expectations.

Neither approach is right or wrong. Each has its proper role. The problem rears its ugly head when we apply the wrong expectations and limitations to the wrong circumstance.

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NECESSARY QUESTIONS

The trick here is to find a process that works for making decisions regardless of the circumstances. I have succeeded, in my own mind at least, in creating a menu of questions that, if asked and answered honestly, provides insightful guidance for responding to the deterioration of nearly every object in every circumstance.

- ❑ How old is the object? What is its nature? What is its problem?
- ❑ What was, is or will be the intended environment for the object? What is the end use?
- ❑ What are the ethical constraints?
- ❑ What can be done?
- ❑ What do you want to accomplish?
- ❑ What resources do you have and how will you consume them?

For convenience, I have coupled these questions into pairs of competing concepts: the needs of the object vs. the needs of the user; what we would like to accomplish vs. what we are able (or unable) to accomplish; and, finally, what it takes to preserve historic integrity vs. available time and money. Once you entertain the notions listed above and resolve all of the questions raised, you are well on your way to taking a thoughtful, reasonable and ethical path to future actions (or inactions).

So what do we need to know to follow that path?

As a group of people, furniture caretakers must possess a wide range of craft skills and knowledge – joinery, marquetry, veneering, carving, turning and, of course, finishing. But craft skills alone are not enough: Skilled practitioners must have scientific and historic knowledge as well.

When faced with the task of dealing with finishes on furniture, we must approach each

problem from four broad areas of concern: preserving historic artifacts; paint and varnish chemistry; furniture history and construction; and the craft of furniture finishing. While these four areas might seem to be unrelated, they must be integrated for successful finish care and preservation.

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BUILDING AN UNDERSTANDING

Most finishers develop an intuitive understanding of the materials they use. This knowledge of what works and what doesn't is compiled during years of experience and practice, success and failure. Such anecdotal information is usually quite accurate, but it is also very limited. In order for knowledge to expand beyond this point and fit it into a rational context, the finisher must begin to study materials science in general, and specifically paint chemistry.

The finisher who does not pursue this endeavor can progress no further than his or her own limited experience. This experience generally does not include a study of the fundamental nature of finishes, much less the areas of optics, color theory or analytical methodology. Let there be no doubt: By understanding the nature of finishes as chemicals on the surface of the wood, finishers can greatly expand their abilities to use different finish materials.

Without the knowledge of chemistry, finishers can observe but may not understand processes and reactions.

For the caretakers of historic furniture, this understanding is critical. They may not get a second chance when working on a historic finish. If the wrong solvent or procedure is used to clean a surface, for example, the existing finish may be destroyed. A new one may be applied, but the old finish is lost forever. As a result, we must have a good knowledge of the chemical nature and properties of the solid finish film, its solvents and its behavior at each step of its existence. This information gives us a framework in which we may understand the compatibility of different materials, the condition of a finish film and the behavior and deterioration not only of historic materials but also the contemporary finishes currently in use.

The third area of concern is the history of furniture, including design styles, structure and finishing processes. This concern dictates the importance of knowing what is an appropriate finish for the piece in question so that any actions undertaken will be sympathetic to it. Frequently, scientific analysis of finish samples can provide some clues, but few have access to instrumental chemical analysis and must base conclusions on knowledge of historic finish processes.

These decisions can be more easily and soundly reached if we are familiar with historic materials, their use and their appearance.

The list of historic finish materials is a long one with hundreds of different items. To these one must add all of the new materials that have been developed in recent times. We deal with furniture not only of the ancient past but also of the recent past: In addition to "antiques," museums and collectors are acquiring furniture whose makers are still living, so our historical knowledge must cover all periods.

Furniture making and finishing has a long tradition, and the more we know of its history, the better we can deal with finish problems. All of this contributes to determining whether a finish is possibly original and should be retained or whether the existing finish is incorrect and of little historic significance (say polyurethane on a Philadelphia Rococo piece).

In situations where the finish has been completely destroyed, history can provide essential clues as to finish materials and even final appearance.

DEVELOPING SKILLS

Fourth and finally, we must be well versed in the craft of wood finishing. Even if we were to have a full understanding of the chemical and historical aspects of finishes, that knowledge is of little value without the craft skills needed to solve the problem. We must be able to do what is necessary, not just decide what is necessary.

The craft skills employed in finish conservation are virtually identical to those used in other finishing procedures, although the application of those skills may be highly specialized. The conservator can get involved in finishing projects where techniques are indistinguishable from non-conservation finishing processes, and vice versa.

So what materials and processes should we use?

- The first area is one in which I can see no conflict: a commitment to using the "best possible" materials to achieve the results. It is certainly a fundamental factor in museum preservation and restoration as we try to engage in treatments that will remain "healthy" for centuries, and I cannot imagine a commercial practitioner who thinks, "Yeah, this will do the job wonderfully, but I'd really rather use something not so good."

But beware practitioners who act on cost preferences, choosing something less costly over a more expensive alternative. They may even take the foolish approach of allowing the cost side of the cost/benefit analysis to trump the benefit side regardless of the final outcome. Such practitioners are rightly scorned. (In a discipline where the most valued commodity is time guided by expertise, arguments about the cost of materials are immediately rendered moot.)

Instead, let's focus on those who are sincerely trying to do the best job possible. There are many considerations with respect to materials used in finishing, refinishing and caring for finishes on historic furniture. Obviously, the functions outlined earlier – that is, providing protection and modifying appearance – are the cornerstones. But others are equally important to this first point.

- Second is the use of materials that, if necessary, can be removed without inflicting fur-

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ther damage on the object. This might become necessary when the materials used deteriorate (remember, everything deteriorates), the object suffers further abuse in the future or a better treatment method is found in the future.

- Third, and related to the second point, is the use of materials known to be stable over long periods of time.
- Fourth, our work should be detectable under close scrutiny to ensure that future observers are not confused or misled by what they see.
- Finally, we are obliged to keep accurate and detailed records for future reference.

ISSUES IN MATERIAL SELECTION

Now, at last, we come to the materials themselves and the intersection where craft skills meet up with materials science in seeking stable finishes.

This meeting results in the elimination of some materials from consideration in conservation while adding other, new ones to replace them. An example of this would be using specially formulated acrylic copolymer resins rather than commercial acrylic lacquers or modified nitrocellulose lacquers. Although nitrocellulose is considerably more stable now than in the past, it still degrades much more quickly than acrylics and is therefore not the first option in most cases.

Acrylic copolymers are applied in the same manner as nitrocellulose lacquers and could be used in commercial finishing. It should be noted, however, that these copolymers are designed with very specific performance characteristics that may not be identical to commercial finishing lacquers.

Another instance of a traditional material being inappropriate for finish conservation has to do with linseed oil or other drying oils. Oils darken considerably with age and cross-link, which means that they are not easily removed. A finish undergoing a chemical reaction that turns it very dark and makes it difficult to remove is a problem indeed.

Not all finish materials used in conservation are expensive or exotic, however, and not all traditional materials are avoided. The perfect example of this is shellac, which is widely used in furniture conservation because it is very stable and remains reversible for long periods of time. And finally, there is the vast wonderland of finishing materials and processes waiting to be discovered. I suspect here that conservators may need to lead the way; not because we are smarter or better, but because we have the opportunity.

A colleague of mine in the furniture laboratory at the Smithsonian Center for Material Research and Education currently has two formulations undergoing patent review, and I have at least four in my notebook that may be accorded such recognition in the future. And yet a third member of our staff, a polymer chemist, has been turning her attention to coating formulations for several years. Only time will tell where our paths lead us.

SETTING A COURSE

For the furniture caretaker, each project is unique and every piece of furniture has its own set of problems. Decisions must be reached on an individualized basis. A correct plan for one object may be absolutely wrong in another case – even one that may appear similar. Because of this there are few "rules of thumb."

The only thing common to each treatment of a finish is the practitioner's desire to use all of his or her knowledge, experience and judgment to preserve and stabilize it. Only through understanding furniture finishing as science, history and craft can the finisher or conservator successfully complete such a task.

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