GOLDEN Turns 30!

This past June Golden Artist Colors celebrated our 30th anniversary. I am still in disbelief at how quickly the time has gone by. Thirty short years ago I agreed to join my parents and wife in a new venture in the cow barn on their little farm in Upstate, NY. Though quite a departure from my original career path, it’s been an incredibly rewarding journey – an opportunity to collaborate with some of the most talented and creative minds in the world. It’s a thrilling experience every time I see an artist using our materials. For as many studios as I’ve visited, artists continue to open my eyes to other ways of seeing and creating new expression in paint.

This business has also created all sorts of new discoveries and opportunities. Growing up, I didn’t have any thoughts of becoming a business man. I wanted to do something creative with my life. Thankfully, I met quite a few other incredibly talented business leaders who also had no desire to be in business and thereby created a new way of constructing and thinking about business. I believe that this effort to strive to become a socially responsible business has made all the difference for me personally, but I also hope for our staff, our neighbors and our customers as well.

It’s a momentous time in the company’s history and in this 23rd issue of Just Paint, we’ve captured some of our most recent milestones as well as sharing in our featured article our continual effort to push the boundaries of modern paint technology. The achievement of these goals thus far has not been the work of just a few solitary individuals, but attainable only with the support of all of you, the entire artist community and of course all our employee owners. We are so grateful for your continued support. Thank you.

Best,
Mark

Defining the Acrylic Patina

By Mark Golden

The acrylic medium for artists has now passed its 60th year since the first artists experimented and created with Bocour’s Magna®. I have been imagining and conjecturing with others for some time now what these materials might look like one hundred, five hundred or a thousand years from now. A significant body of evidence is being accumulated by colleagues in the field of conservation science and by our own research to begin to predict what these changes might be over time. Through processes of both accelerated exposures and real life exposures, we can develop a picture of these changes of the various acrylic surfaces, mediums and colors.

Although at GOLDEN, our philosophy and personal metaphor around working in the acrylic media has been to achieve a material with the clarity of glass and the resistance of stone. Realistically, not even these materials are left unscathed by the passing of time. Some may harden, soften, some stretch and ooze and others crack, some flake and others dust away; some colors may fade to white and others darken to brown.

Some develop encrustations, ruptures, pits, stains, wrinkles, and organic growth. Change can take multiple forms and in conflicting directions in the same material.

Many of these changes we describe as the ‘patina’ of the object. These signs of age are due to changes shaped by wear, exposure to the elements and internal changes of the materials themselves. Some which are earned over a work’s historic record, and some that are created to give an object some instant age, character and/or unique aesthetic appearance. Fans of PBS’s ‘Antiques Roadshow’, have been thoroughly warned not to touch the original finish no matter how deteriorated or blemished rather than turn a priceless treasure into scrap.

Patina does not refer to all changes in an art object. Most objects conservators, historians and artists worldwide use the term patina much more broadly to define a very wide range of changes in many objects and works of art. But clearly its definition is limited to the very top visual surface of the object or painting. It does not refer to other changes that are more internal to the work of art. Typically we are just talking about no more than a couple of millimeters of the surface. IT IS the surface we see.

We tend to use the term “patina” to describe any wear or change in a material that gives it a sense of age… and the older it looks, the greater significance or importance we infer upon the work. This badge of age has gone by. Thirty short years ago I agreed to join my parents and wife in a new venture in the cow barn on their little farm in Upstate, NY. Though quite a departure from my original career path, it’s been an incredibly rewarding journey – an opportunity to collaborate with some of the most talented and creative minds in the world. It’s a thrilling experience every time I see an artist using our materials. For as many studios as I’ve visited, artists continue to open my eyes to other ways of seeing and creating new expression in paint.

Thankfully, I met quite a few other incredibly talented business leaders who also had no desire to be in business and thereby created a new way of constructing and thinking about business. I believe that this effort to strive to become a socially responsible business has made all the difference for me personally, but I also hope for our staff, our neighbors and our customers as well.

It’s a momentous time in the company’s history and in this 23rd issue of Just Paint, we’ve captured some of our most recent milestones as well as sharing in our featured article our continual effort to push the boundaries of modern paint technology. The achievement of these goals thus far has not been the work of just a few solitary individuals, but attainable only with the support of all of you, the entire artist community and of course all our employee owners. We are so grateful for your continued support. Thank you.

Best,
Mark
restoring the artist’s original intentions? Even that ethic of the surface, that it no longer represents internal discoloration or distortion of accumulation of dust, grime, soot, and areas retouched by past restorers “attempting to extinguish the myth of the dark romantic genius in agony and ecstasy”… She asks this final question of us. “What is more authentic; the original image of Michelangelo preserved (as it was) through time, or a historical image that aged through centuries? What if Michelangelo rejected the temptation of eternal youth and revealed in the wrinkles of time?”

It is not simply because of the enlightened discoveries of modern conservation that we know that paints will change over time. It is clear that artists throughout the history of painting knew of the changes associated with their materials. They understood that their linseed oil would yellow with time and become more transparent. They understood that their resins would become even more amber and certainly understood that the oils would embrittle and potentially develop cracks in the work. When Sir Joshua Reynolds (1723-1792) was confronted with his own poor painting construction, he is said to have shared, “All good pictures crack”⁴. Artists also struggled with the permanency or lack thereof of the various colorants used and often concocted within their own studio or by their favorite alchemist or pharmacist. Eventually that task would be accomplished by the new breed of colormen of the late 17th and 18th centuries.

Our view of the history of art is through a lens of a continually shifting surface. We only have examples of works of art that have to some lesser or greater degree, changed over time. We have accepted, and in many cases embraced those changes in traditional materials. Reframing this concept, we are only concerned when an old painting doesn’t match our expectation of how an old painting should look.

How Will My Acrylics Age?

The question we are left to examine is: What is our expectation of our modern painting materials? Do we assume that they will have no change over time? That our acrylic paintings will become a frozen representation of our contemporary legacy?

What I hope to examine within the remainder of this piece is the evidence of change, as well as constancy of these materials. To investigate the potential future with the typical use of these materials as well as the potential for change with the expanding range of experimental techniques that these new materials have allowed. By understanding these changes, artists will be able to anticipate the visual movement of these materials as they age, and to work with these changes to be able to assure that the work viewed during the passage of time will be able to both retain that original intent imparted to the work when it was created as well as the history of the piece. It will also present some opportunities for artists to consider the mitigation or at least the slowing down of some of these expected changes.

No matter how durable and lightfast these materials may be, they will change. There are so many environmental, chemical and physical initiators of change that it is truly remarkable when we are able to observe any object of art or antiquity that exhibits only minor changes to its visible surface. These forces include light exposure (especially from ultraviolet sources), extremes of temperature and humidity, internal chemical cross linking or crystallization of materials, incompatible materials within the same work, man-made and environmental disasters, molds, mildews, insects and rodents, mechanical changes such as creep or migration, storing, crating and shipping work, cleaning artwork and the various solvents and chemicals they might be exposed to as well as the effects of pollution, to name just a few.

Given the durability, the flexibility, the general lightfastness of the acrylic
specifically in comparison to other media, one would expect little change in the color or surface of the paint film. Yet these acrylic paint surfaces will change, and in ways different from other traditional media.

Due to the relatively recent invention of the acrylic as an artist’s medium, we have only a few examples of naturally aged films where we know exactly the constituents and exposure of the materials. Few studies have yet to be conducted in our museums surveying comparatively works produced in acrylic versus other media. In Stringari and Pratt’s research examining the acrylic media, they only briefly mention the acrylic paintings in the collection at MOMA “…overall, they are in quite good condition, unless they have been mishandled or subjected to extreme environments”. For most of our and others testing, we have to depend upon accelerated aging of samples. Samples are typically exposed to conditions that either raise temperature or increase the intensity of the light, especially the UV radiation over some period of time to try to induce the change that might be anticipated with natural aging. Although this is admittedly less than perfect for a firm understanding of the changes we can expect, it is the best we have.

**Acrylic’s Extraordinary Flexibility**

The changes that will be most typical of acrylics early on as they age will not be a surprise to any artist who has worked with the medium. The acrylics provide extraordinary flexibility and resistance to cracking (other than in near freezing conditions). Eric Hagen examining 27-year-old samples of acrylic films produced by Marion Mecklenberg, was able to demonstrate that these films will continue to have the flexibility similar to relatively fresh, one-year-old films. This advantage of flexibility also has its downside: the surface is more vulnerable to marring, dirt pick up and sticking to other surfaces.

As part of our collaborative research project with Buffalo State College in 1992, samples of acrylic gel mediums were applied to glass and then exposed to natural aging in north and west facing windows. We can see the degree of color change and opacifying relative to the thickness of application.

![Glass plate placed in north and west facing windows at Buffalo State College photographed after 17 years of exposure. © 2010, James Hamm, Buffalo State College](image)

Most early acrylics made in the U.S. throughout the mid 1950’s through the mid 1990’s contained a common resin combining ethyl acrylate and methylmethacrylate.

Manufacturers of the acrylic resins define their thin films as quite clear, almost colorless. Working in collaboration with the technical team at Rohm & Haas® (now Dow®), we have been able to share how these materials are often used by artists and the need for cleaner and clearer raw acrylic as a starting point. In 2001 we began a process to construct our own acrylic polymer in an effort to gain a greater understanding of how to mitigate our concerns with the dispersion polymers currently available.

**Acrylic, a Porous Binder**

The less apparent concern with the acrylic medium is its extreme porosity. The smooth glossy surfaces give the impression of an impermeable film. Some have claimed that the acrylic is a ‘closed system’. This would not be accurate. The acrylics are extremely porous, a condition that is exacerbated by the addition of pigments and the additives required to make a stable paint. The advantage of this porosity is that it can improve the adhesion of subsequent layers as well as oil paints that tend to have an even smaller molecular structure and are able to penetrate the acrylic film. The disadvantage is that one needs to be careful of the environment of a non-varnished acrylic painting. Pollutants such as soot, smoke and general grime can penetrate with vapor into the acrylic film. The porous acrylic film is also subject to damage from well intentioned cleaning efforts. Oily deposits from handling acrylic paintings, especially those paintings

![The raw resin AC234 in a thick pour in 1987, photographed in 2010. The crazed appearance is typical of shrinkage during initial drying.](image)

![The raw resin AC234 in a thick pour in 1987, photographed in 2010. The crazed appearance is typical of shrinkage during initial drying.](image)

![Fingerprints not visible when produced, over time became noticeable as oils from hand eventually discolor a colored ground.](image)
with a very matte surface, are very difficult to remove and tend to also darken with time.

**Changes Caused by Additives**

To manufacture acrylic artist paint requires a significant number of formulating additives. Many of these additives, which are required to make a stable and workable paint, are volatile and evaporate, leaving the dried acrylic film. The additives that remain in the film are subject to the same forces of change that attack the acrylic polymer themselves. Few of these additives have the same physical and chemical resistance that the acrylic itself has.

Many of these additives are responsible for the changes in the film as it ages. It is the responsibility of the manufacturing process to keep these required additives to a minimum and to evaluate each additive for its potential contribution to any changes in the dried acrylic.

These additives include the defoamers (typically mineral oils), wetting agents (ionic salts), surfactants (bridge chemicals between the water and non-water phase of the dispersion), thickeners (acrylic acids, cellulose thickeners, urethanes) and preservatives. The hundreds of variations of these materials cause a range of changes in the final product, with potential for yellowing, greening, fogging, opacifying the final product, with potential for materials cause a range of changes in the final product.

In research conducted by our Lab, acrylic films of similar wet weight were poured, and allowed to thoroughly dry. They were then subjected to heat aging at 140˚ F for 400 hours. We can see the degree of color change in the heated gel samples compared to the controls.

To be able to understand the changes in these thick acrylic films in context, it is necessary to share some control data of other work looking at acrylic and other traditional artist media. In thin films the acrylics show very little color. Compared to traditional materials the acrylics are almost transparent.

In evaluations by Tom Learner while at the Tate, he was able to demonstrate the color changes in various white formulations both within acrylic, oil and alkyds9. We can see in the graph below that all of the acrylic samples evaluated exhibited the smallest degree of change in thermally aged samples up to 600 hours. The higher on the vertical scale, the greater the degree of yellowing of the sample. Again, remember that using heat to accelerate what will occur in real time is only a potential indicator of change, not the degree, severity or time scale can be implied.

**Evaluating Change in Gel Mediums**

Specifically for evaluating purposes of the acrylic we are examining films above 1/8 inch thick. These thick films exacerbate the visual changes that would otherwise be too subtle to be visible, especially in reproductions.

The highest trend lines represent the greater yellowing tendency of oil and alkyd white paints compared to formulated acrylic white paints when exposed to heat accelerated aging.

---

[Image 1] Naturally aged samples of acrylic resins poured in 1992, including on the bottom a pour of ethyl acrylate/methyl methacrylate polymer and two samples of butyl acrylate/methyl methacrylate polymers.


[Graph] The higher trend lines represent the greater yellowing tendency of oil and alkyd white paints compared to formulated acrylic white paints when exposed to heat accelerated aging.

---

[Image 3] Continued on page 13
Conservation Analytical Labs of the Smithsonian a year earlier took an entirely different approach to the study of these materials by analyzing the mechanical dynamics in the acrylic media.

The only other group studying the acrylic medium in context of developing new quality standards for all artist materials was the ASTM Subcommittee D-01.57 on Artists’ Paints and Related Materials. Within the development of these standards emerged an understanding of the contribution of pigments to the durability of the acrylic medium. One of the most important contributors to this work was Henry Levison, a pioneer chemist in the acrylic media for artists and inventor of Liquitex®. His initial research shared with some enthusiasm, the reduction of yellowing especially compared to traditional oil paints. Levison was one of the early contributors to the work of the ASTM subcommittee. This work had begun in the late 1970’s and we joined this group in 1981. A good deal of our Subcommittee’s work has been the development of standards for lightfastness of pigments as well as accurately labeling paints for artists.

We had attended our first joint meeting at the National Gallery hosted by the Smithsonian staff of the Conservation Analytical Lab in 1991. The relationships we began with the conservation community allowed us a much greater understanding of the sort of challenges these materials might face. We had published our first paper in collaboration with James Hamm of Buffalo State looking at the yellowing of acrylic films in relationship to the grounds on which they were applied. Since this time we have published separately or jointly seven papers, delivered over a dozen symposia on the conservation of acrylic materials and supported many other research projects creating custom formulations for advancing the knowledge and the potential of these amazing materials. We were delighted to be guided and mentored in this effort by Ross Merrill, the Chief of Conservation at the National Gallery of Art in Washington, DC. Ross supported our effort to sponsor the “Samuel Golden

**Following the Research on the Acrylic Medium**

*By Mark Golden*

It is hard to believe that when Golden Artist Colors made its debut in 1980 no brand of acrylic had more than one gel medium, one polymer medium, one matte medium and a molding (or modeling) paste. It was from the needs of artists that GOLDEN Acrylics’ list of mediums expanded to over 46 products and countless custom mediums. This explosion of new mediums and color possibilities came as a response to meeting artist needs to discover an exciting unexplored future with what was still a relatively new artist medium. Acrylic emerged from a product that was considered of secondary importance within the arts community to one that is now considered at least the equivalent to any other art media. But as these new acrylics offered new possibilities, artists demanded even more of these materials, pushing them into further reaches of discovery and creating even greater expectations for their performance.

Although a good deal of information was assumed to be known about the acrylic materials by the 1980’s, much of the information was conjecture and anecdotal. Few treatises on the materials were available. Margaret Watherston’s “The Cleaning of Color Field Paintings” was one of the first published conservation treatment studies suggesting some signs that these acrylic paintings might not be so indestructible. Yet, Watherston’s work took more issues with underbound acrylic paints and unprotected canvas than any true indictment of the acrylic paints themselves. To truly understand how these materials will stand up over time has required a concerted effort of material scientists and manufacturers working together to provide the support for our observations and to sustain or refute common assumptions as to how these materials perform.

Prior to this past decade, very little research, yet much conjecture composed our body of knowledge as to how these new acrylics would fair. The earliest pioneer in this new artist binder was Dr. Robert L. Feller. As a restoration chemist at Carnegie-Mellon Institute in Pittsburgh, he searched for an improved paintings varnish. With his groundbreaking work studying acrylics for conservation in the 1950’s through the 1980’s, we had at least the beginnings of a scientific basis for the use of acrylic as an artist medium. This work continued in fits and starts until Paul Whitmore continued that research of chemical changes in the acrylic at the Mellon Institute in 1993. Marion Mecklenburg at the
Fellowship for Research into Modern Painting Materials” awarded to Dr. Greg Smith. Ross was instrumental in bringing together various groups to begin to tackle these important issues. Included in this collaboration were the Smithsonian’s SCMRE, The Tate, The Getty, MolArt in the Netherlands, MOMA and eventually Queens University, Buffalo State, the University of Turino, and Winterthur. All of these institutions, for the first time, were working together to understand the most important new medium of the last and this century.

From these collaborations emerged a highly committed consortium led by Dr. Tom Learner, the leading researcher in Modern Materials. Culminating in the Symposium in London in 2006, at the Tate: “Modern Paints Uncovered.” The many dedicated scientists have continued this research, providing new tools for conservators and new insights for us in our attempts to create products that will provide artists even greater success with these new modern coatings.

FOOTNOTES
3 Although pigments play a substantive role in defining the change or lack of change in an artist paint, the subject of lightfastness of pigments and their subsequent changes based on exposure will not be part of this article, other than the role of pigment concentration on the level of porosity and flexibility of the acrylic film.

ARTICLES

SYMPOSIA
“The Convergence of Art, Tools and Posterity” Joint Meeting of Midwest Region Conservation Guild and the Southeast Region Conservation Association (November 2002)
Symposium: “Santos: Substance & Soul” sponsored by The National Hispanic Cultural Center of New Mexico and the Smithsonian Center for Materials Research and Education. Presented “Acrylic Artist Paint Properties and Best Practices for Painting Wood” (August 2001)
Symposium Presentation: “Creators or Destroyers: Ethics, the Environment and Art Materials.” College Art Association Annual Conference, Presentation: “Art materials that last, art waste that doesn’t. Can we have both?” (September 1991)
It was just over two years ago that OPEN Acrylics was launched. Unimaginable at the time – an acrylic that could potentially be worked all day! As more artists began using OPEN, we started hearing the requests for more colors and bigger sizes. “Where’s the Zinc White?” “When will 5 oz. tubes be available?” In response to these requests, we were happy to oblige this past spring by expanding the line of OPEN Acrylics with 40 more colors and two new mediums in a matte sheen. In addition, a select range of colors are now available in 5 oz. tubes and 32 oz. jars.

These products are truly unique so we’re extremely pleased with how quickly the artist community has embraced this new innovation in acrylic paint. They are like no other acrylic product and this has dramatically increased the range of options now available to painters.

OPEN Acrylics are a very different feeling and working paint. They will allow artists to do things impossible with any other product. They are considerably softer in consistency than GOLDEN Heavy Body paints and have a relaxed working property that facilitates blending, softening, shading, glazing and creating fine detail. This increased working time allows these paints to be used in more traditional techniques that were once only possible with oils. Clearly, the OPEN Acrylics are not an oil replacement. Yet at the same time, they have given artists a new way to work, sometimes even changing the way in which they paint.

And since these paints are still acrylics, that means there are options. If an artist wants to modify opacity or speed up drying time, OPEN Acrylics are designed to be a seamless extension of the existing GOLDEN line of acrylics and mediums, which may be blended with OPEN to achieve the desired result. To maintain the maximum working time of OPEN Acrylics, OPEN Mediums and Thinner are available. In addition, there are two new Mediums being added to the OPEN Acrylics line: OPEN Medium (Matte) and OPEN Gel Medium (Matte).

We’re excited to have these truly innovative paints in our offering and have enjoyed getting to know a number of artists that are new to the GOLDEN brand as a result of this new medium. We’ve also had a grand time hearing from artists who are experimenting and teaching us a thing or two about the true versatility available with OPEN Acrylics. We plan to keep this dialog going for a long time to come. If you are new to OPEN and would like to learn more about these products go to goldenpaints.com/OPEN for application sheets and additional resources.

As OPEN Acrylics dry and begin to lose some initial water, the paint changes from a very wet greasy state to a stiffer, thicker state, yielding a much firmer feel and therefore, captures line and texture much more crisply.

### OPEN Acrylics Matures to 80 (Colors that is)

<table>
<thead>
<tr>
<th>Time</th>
<th>Appearance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 min.</td>
<td>Wet and greasy</td>
</tr>
<tr>
<td>10 min.</td>
<td>Thinner fluid</td>
</tr>
<tr>
<td>30 min.</td>
<td>Thicker and stiffer</td>
</tr>
<tr>
<td>60 min.</td>
<td>Firmer feel</td>
</tr>
<tr>
<td>90 min.</td>
<td>Much firmer</td>
</tr>
<tr>
<td>2 hours</td>
<td>Very firm</td>
</tr>
<tr>
<td>3 hours</td>
<td>Maturing</td>
</tr>
</tbody>
</table>

It was just over two years ago that OPEN Acrylics was launched. Unimaginable at the time – an acrylic that could potentially be worked all day! As more artists began using OPEN, we started hearing the requests for more colors and bigger sizes. “Where’s the Zinc White?” “When will 5 oz. tubes be available?” In response to these requests, we were happy to oblige this past spring by expanding the line of OPEN Acrylics with 40 more colors and two new mediums in a matte sheen. In addition, a select range of colors are now available in 5 oz. tubes and 32 oz. jars.

These products are truly unique so we’re extremely pleased with how quickly the artist community has embraced this new innovation in acrylic paint. They are like no other acrylic product and this has dramatically increased the range of options now available to painters.

OPEN Acrylics are a very different feeling and working paint. They will allow artists to do things impossible with any other product. They are considerably softer in consistency than GOLDEN Heavy Body paints and have a relaxed working property that facilitates blending, softening, shading, glazing and creating fine detail. This increased working time allows these paints to be used in more traditional techniques that were once only possible with oils. Clearly, the OPEN Acrylics are not an oil replacement. Yet at the same time, they have given artists a new way to work, sometimes even changing the way in which they paint.

And since these paints are still acrylics, that means there are options. If an artist wants to modify opacity or speed up drying time, OPEN Acrylics are designed to be a seamless extension of the existing GOLDEN line of acrylics and mediums, which may be blended with OPEN to achieve the desired result. To maintain the maximum working time of OPEN Acrylics, OPEN Mediums and Thinner are available. In addition, there are two new Mediums being added to the OPEN Acrylics line: OPEN Medium (Matte) and OPEN Gel Medium (Matte).

We’re excited to have these truly innovative paints in our offering and have enjoyed getting to know a number of artists that are new to the GOLDEN brand as a result of this new medium. We’ve also had a grand time hearing from artists who are experimenting and teaching us a thing or two about the true versatility available with OPEN Acrylics. We plan to keep this dialog going for a long time to come. If you are new to OPEN and would like to learn more about these products go to goldenpaints.com/OPEN for application sheets and additional resources.
Williamsburg Handmade Oil Colors has made the move 30 miles north from one small upstate, New York town to another. On May 21st, Golden Artist Colors completed the purchase of the small manufacturer and is now producing the oil colors in the GOLDEN Custom Lab facilities within its original factory in New Berlin, N.Y.

Barbara Schindler, President of Golden Artist Colors, shared, “We are very excited to be making Williamsburg Oils. I’m delighted that we were able to offer positions in our company to all staff from Williamsburg. Retaining the staff responsible for producing quality Williamsburg Handmade Oil Colors was an important objective. Working with the employees from Williamsburg has been very positive and gaining their knowledge has been extremely valuable and insightful.”

According to Mark Golden, co-founder and CEO of Golden Artist Colors, “there was no question that eventually we would make oil colors here. In fact, for over 20 years, we have been making custom oil paints for artists requiring unique colors or materials.” The main focus of GOLDEN for its 30 year history, however, has been the advancement of modern coatings for artists. Not only has it produced the widest range of acrylic coatings for professional artists, the company has also contributed significant research to modern art conservation. Moving forward it will be important that GOLDEN earns the trust of Williamsburg supporters by continuing the tradition of this unique, niche oil paint created over 25 years ago by the late Carl Plansky.

“This will be the critical work for us here,” shared Jim Hayes, GOLDEN Technical Director and Chemist for over 23 years. “It is the intent of all of us at GOLDEN to be stewards of this legacy that was created by Carl. It is also our responsibility to assure the future legacy of artists’ work using these paints; that these materials will continue to be of a quality that we can all be proud to maintain.”

Sarah Sands, GOLDEN Supervisor of Technical Services for over eight years, has a special relationship with Williamsburg Handmade Oil Colors. “I started using Carl’s paint while teaching at the New York Academy of Arts in 1992,” said Sands. “I instantly fell in love with the material. It’s almost impossible to describe the amazing tactile quality of the paints.” By 1996 while teaching at Indiana University, Sarah contacted Carl about the possibility of working with the company. By that spring, Sarah had joined the firm, providing her skills as Business Manager and technical support consultant for artists. Sarah continued with Williamsburg until 2000. “We’re so fortunate to have Sarah’s background and knowledge, to be able to internalize and share company-wide, that passion for paint,” said Hayes.

The history of Golden Artist Colors has roots in the 1930s as Mark’s father and co-founder of Golden Artist Colors, Sam Golden, began working with his uncle, Leonard Bocour. Bocour Artist Colors began as a color shop making hand ground oil paints for artists in Manhattan. “As confident as we were that eventually we would be making an oil paint, we were also mindful that it would not be a GOLDEN Oil,” shared Mark. “Our company is known for being an advocate for the relatively new Acrylic Medium. We sought a brand of professional oils that could stand on its own. We are thrilled to begin this journey.”
to become an art teacher, but being in that environment helped me tremendously in my career here at GOLDEN. It taught me how to convey material in a way that was easily understandable. My experience has helped me to take complex material and translate it into clear, concise information, whether I’m talking with an artist on the phone or writing an e-mail response. At GOLDEN, it’s never been about, ‘here’s the answer.’ It’s always been focused on, ‘here’s the answer and here’s how I arrived at this answer, these are the best recommendations about how you can do this for yourself.’

At GOLDEN, we’re not just reading scripts. It’s very rare we will pull up a Tech Sheet, look at it and recite it word by word. That’s just not something we do. We give all of the information possible, all the different scenarios.

Mark: So it’s need by need, artist by artist, realizing that everyone has a slightly different situation.

Mike: Yes, everybody’s different. I’ve realized over the years that I can’t go into a call with a perception of what I think it’s going to be about. I never assume I know everything about the situation.

Mark: You get to speak to some of the most talented and creative people in the world. It’s a pretty unique position.

Mike: Definitely! We’ve been providing this service for over ten years and the number of phone calls and e-mails we’ve had come in is staggering. The diversity of the artists I’ve spoken with is really amazing. And I guess that’s part of the fun and the allure of being here. I never know who’s going to be on the other end of that phone when I pick it up.

Mark: When you finished school, were you doing the typical artist thing, painting by night and working another job by day?

Mike: I was figuring out what to do. In my junior and senior year I obtained a concentration in advertising. That was the direction I was going to take. I began thinking about moving to New York City, knowing there wasn’t a lot of opportunity in the Binghamton area. While I was working at a local sign company, PAC Signs, I remember taking my lunch break and began reading the paper’s classifieds and – long story short, I eventually went to New Berlin for an interview.

Mark: Michael, what year was that?

Mike: It was 1989. The ad was for Quality Control, a lab technician. It said that artistic skills were desired, but not necessary.

I found it interesting – an artist paint company in upstate New York. I didn’t know anything like that existed here. It didn’t seem like it’d be too terribly difficult to do, and it’d also give me access to paint! That was part of the motivation.

I started in Quality Control, which helped me learn the characteristics of the paint and what makes good paint versus bad paint.

Mark: It was great having someone join us with some unique skills in silk screening and airbrush as well. We were able to take advantage of some of that knowledge as we had projects that involved both silkscreen and airbrush paints when you came on board.

Mike: That’s right. In fact, I remember a meeting some time ago where you had heard I did airbrushing in college and had some experience in that area. You asked me to try out a product and provide feedback. We had to not only develop the product, but create testing methods as well. There wasn’t any manual on how to make Airbrush Medium or even how to use it.

Mark: After the completion of that project, you also wrote the Tech Support information for it. You were our resident airbrush expert. Was it a slow changeover from working in the Lab to eventually spending more time on the phone responding to customers?

Mike: Yes, it was a transition. It didn’t happen overnight. We worked together until we created a successful process for technical calls and e-mail, and creating product and application information sheets.

Mark: Michael, when did you become full-time tech support?
Mike: It was 1997.
Mark: It happened soon after we decided to put our phone number on all of our product labels. Customers would get a real person on the phone.

So, 13 years later, what have been the most exciting changes here or the most exciting projects that you’ve worked on through Tech Support?

Mike: There are many different facets that keep it fresh and enjoyable and keep me wanting to do more. When we started getting the calls about the fiberglass animals was exciting because it was a new opportunity for learning – we didn’t have any Tech Sheets about it. It was all very new to us. The frequency of calls and e-mails regarding this topic just kept increasing, so we knew we needed to become knowledgeable about it. Our customers needed information, so we’d provide it. I think this was the basis for a lot of our Tech Sheets. There was a need for it, so we responded, even if it meant that we needed to put aside resources to conduct the proper testing and research. It didn’t matter. We’d do whatever was necessary to get our customers the most valuable, accurate information possible, even if it meant that we had to find resources outside of GOLDEN. It’s what we do. That’s what’s most exciting about being here.

Mark: That’s been a great contribution – to be able to share the information that we all gain as we speak to more customers or reach out to other companies making unique products and being able to share that information for everyone.

Mike: Yeah.

Mark: Recently you’ve been instrumental in helping to create the new Technical Support Applications Room here at GOLDEN. How is that used by the Tech crew?

Mike: It’s really a little oasis away from our desks. It’s an independent place for Tech Support staff to work with materials, conduct our own testing, spend time with visiting artists, teaching them about our materials.

We try to approach our work in that area with Lab testing in mind, of course, but coming from an artist perspective. We use the space to supply the Lab with real life examples of the ways in which artists are probably going to be experiencing the product. What better way to either question the results from the Lab or reinforce that information from the Lab?

Mark: Mike, can you talk about the new project you’re working on with Ulysses, producing Tech videos for our YouTube® page?

Mike: Let’s face it, artists are very visual. It’s been wonderful to help an artist understand something in two minutes which would normally take us about seven pages of text.

It’s really been a lot of fun, and we all realize that the goal isn’t to make a polished Hollywood production. We’re trying to convey information quickly and clearly. The feedback from artists has been really positive, which makes it so rewarding. We also have some of our stores and vendors starting to embed these videos into their own documents and literature. We’ve got blogs that are referencing them already, too.

Mark: You haven’t stopped painting even though you’ve had a bunch of roles here. How has being part of this company, being a part of the Tech Support for the entire company, changed or influenced your painting?

Mike: It has definitely influenced it. I came out of the studio arts printmaking, oil painting and sculpture mentality. Coming to GOLDEN and working with a professional acrylic paint was an eye opener for me. Working here and discovering materials and working in the Lab and literally being the first artist ever to use certain materials – even before the person that ordered the custom product – has been exciting and inspirational!

To be able to test and experiment with materials has been a lot of fun. I’ve been here almost 20 years. It’s been 20 years of education, knowledge and discovery that never would have been available to me and that’s part of the excitement. The most difficult part over the last 20 years, especially after becoming a father, has been being able to take all the knowledge that I have gained at GOLDEN and applying it to my own work, finding the time to get back to painting and creating.

Mark: Thank you for your time Michael. We are all so proud of what you’ve been able to accomplish for all our benefit - being the pioneer in Tech Support and I thank you for helping to make this service such a cornerstone of the company.
As of April 5, 2010, Golden Artist Colors is now under new ownership. Employees are no longer just participating owners, but the majority owners of the company. GOLDEN has become one of only 4,000 other companies across the entire United States that is majority owned by its employees.

“This has been an unbelievable journey for all of us here at GOLDEN,” said CEO, Mark Golden. “Since the beginning, we have tried to create an environment where people can thrive, believing that if the people thrive, the company will too. These philosophies lead us to establish an Employee Stock Ownership Program for Golden Artist Colors in 2002, providing a tangible way for employees to not only act and feel like owners, but to be owners. Now just eight short years later, our dream of majority ownership for staff has come true!”

Together as employee owners, we work diligently to nurture and grow the company,” said Filling Technician and Trainer, Andrea Bice. “It’s exciting to know that each and every one of us has the opportunity to positively affect a legacy that has been entrusted to us by Mark and Barbara Golden.”

According to company President & COO Barbara Schindler, this was a natural step forward for the company. “GOLDEN is a leader not only in the development of fine art materials, but in employee growth and support as well and it’s paid off,” said Schindler. “Participating in an ESOP has been incredibly motivational for staff, and this has resulted in a marked improvement in performance for the entire company.”

“The major difference of an ESOP company isn’t in the daily business routines,” said Operations Manager, Greg Sheldon. “It’s when the work load pressure increases and everyone focuses harder on their job. This level of intensity insures that promises made to our customers and ourselves, are honored, regardless of the magnitude of the job. There is pride and accountability with ownership that is absolutely a powerful advantage we have being an employee majority owned company!”

Barbara and Mark Golden receive a commemorative scroll from employees at a GOLDEN ESOP Majority Ownership Celebration.
On June 21, 2010, GOLDEN shut down operations and celebrated Paint Day, an opportunity for all staff to paint and take workshops from the professional artists of the GOLDEN Working ArtistsSM Program. Employees were given the chance to be artists for the day, spending their time pushing around paint, experimenting with materials and being creative!

“It was an opportunity for folks to see the materials through the artist’s eyes and experience the paint as users and not makers,” said GOLDEN President, Barbara Schindler. “It was a joy to see their faces light up at the unexpected discovery that often times happens when painting. Even more rewarding was observing the interaction between the Working Artists and GOLDEN staff. This one-on-one interaction in the class is what has made the Program so strong in the last 13 years.”

Paint Day gave these professionals an opportunity to teach folks more used to making, testing, filling and shipping the paint. “The challenge,” described Brady, “was to ensure that all staff was able to at least touch that spark that is the driving force for every artist and to understand why painting with GOLDEN products is such a passion for so many artists.”

The Working Artists are professionals whose credentials range from Masters of Fine Arts to Masters in Education. The majority of artists maintain a rigorous studio practice while continuing to exhibit in national, international, group and solo shows.
As these materials are being made more and more transparent, artists are working in thicker and thicker fashion as if working in thick watercolor or a cold glass. It is important that artists experimenting with these materials consider and are able to anticipate the potential for changes.

Although an imperfect method for making determinations of change that might take hundreds of years to occur, we have attempted to use accelerated UV exposure to demonstrate changes in the acrylic gel mediums. The most common change is a yellow to amber cast of the gel with some degree of increase in opacity in some of the examples. The thicker the gels, the greater tendency to also show bubbles trapped in the films. These same results are evident with accelerated aging using UV fluorescent equipment or Xenon Arc full light spectrum sources. Studies completed by Whitmore, Colaluca and Morris suggest that acrylics are subject to some of the same effects of oils stored in the dark. They demonstrated that after UV exposure they were able to reduce yellowing on their aged sample. They were less successful on reducing yellowing caused by the interaction of the acrylic and the support.

The most dramatic changes in surface color and translucency occur as the gels are made more matte in their appearance. This is typical as additional solids are added to the gels to reduce their overall gloss. As these films age, they both gain color and reduced clarity.

Support Induced Discoloration

One of the most significant culprits to the color change occurs when thick applications of acrylic gels are applied to cotton or linen canvas, Masonite® board, or other similar surfaces. We coined this potentially severe yellowing in our research paper in 1992, “Support Induced Discoloration”. The waterborne acrylic, which contains significant surfactants or soaps is capable of drawing into it any of the water miscible components in the substrate, even through gesso layers, leaving the acrylic dramatically yellowed and darkened. This photo shows the effect of simply washing the canvas before applying the gesso and the gel medium. It is also possible to reduce this effect by using a primer such as our Polymer Medium to somewhat seal the canvas surface before priming. Support Induced Discoloration is not apparent when working in a thinner fashion on even the dirtiest of substrates, as the thin acrylic dries too quickly to draw in too much of the components of the substrate.

Sensitivity to Solvents

Acrylics are sensitive to most solvents, consequently, well intentioned attempts to clean an acrylic painting can cause problems. It is possible with the mildest of solvents and the lightest of intentions to abrade, dissolve, and scratch the acrylic film. The only solvents that can appropriately be used, creating the least
damage to an acrylic film are mineral spirits and water. Unfortunately, mineral spirits does not work well as a cleaning agent, so one is left with the potential use of water on the work. If one was to read any of the popular conservation publications, it would suggest that because water will swell, it should not be used for cleaning an acrylic paint film. It has only been of very recent work, within the last few years, that there is some suggestion that application of water may work successfully to clean acrylic paintings. On our website in Just Paint Issue 5, we outlined the various dry cleaning methods to clean your paintings. We continue to advocate quite strongly that dried methods should be completed first and in some fragile work, only dried methods are appropriate.

We have found in our research that cleaning with a damp non-linting cloth can work quite successfully without creating significant damage to artwork. Although early in the research, it has been noted by several conservation scientists, that cleaning with water may even be quite advantageous. This is certainly something we can only recommend for the artist to try to attempt on their own work as they know the work and its construction most intimately. It would be naive of us to think that artists do not clean their own work. It is our responsibility to provide these resources to artists so that they may be successful and avoid solutions that clearly won’t work. Once the work leaves your studio, your clients should seek a paintings conservator that works with modern paintings. Many talented conservators are listed on the American Institute for Conservation (AIC) website, www.conservation-us.org.

The advantage of cleaning the acrylic film with water is that it is a wonderful cleaning solvent. It has also been found that just a damp cloth can be quite successful in removing some of the excess additives in the paint that exudes to the surface. The most common constituent of this surface accumulation of additive is ‘surfactant’. This surfactant is required as part of making the actual acrylic polymer dispersion. Surfactants are also used to make sure the pigment particles are well dispersed within the acrylic matrix. On drying they no longer serve a purpose and on the surface they can produce a blemish that can reduce the gloss and evenness of the painting. Simply wiping with water can remove this filmy material and improve the painting’s clarity. It can also aid in subsequent adhesion of varnishes to the final decorative surface of the painting.

Our MSA Acrylic (soluble in mineral spirits), which is the basis of our most important acrylic varnish, continues to be the most consistently clear of any acrylic binder. It is understandable that making these systems compatible with water increases the degree of change in these other acrylic systems.

Section of acrylic film: Water cleaned with damp cloth on right side showing removal of surface blemish.
Although it is not possible within the scope of this article to review the advantages of varnishing your acrylic painting, (see Just Paint Issue 2 on our Web site) our system of isolation coat and final varnish will dramatically aid in preserving the original intent of the work while potentially adding a barrier coat and sacrificial coat for subsequent conservation to preserve your painting.

SUMMARY

It is clear from our research and the work of many others, that the acrylics, as flexible, as lightfast and as clear as they may be, are still not perfect. They will exhibit change over time and this change, not so apparent yet to many artists, will become apparent over time. So what might this acrylic patina be called? “Gold tone” is already used by oil paint. It is unlikely that the acrylics will ever reach the level of yellowing of drying oils.

We can surmise that the more matte, and thickly applied gel coats will age to a more opaque and more amber to brown appearance. We can also expect the thick gloss gels to also have some yellow component as well as a slight loss of clarity. We might also expect that matte acrylic paintings will have absorbed more pollution discoloration than gel or other mediums, that the colors will remain quite crisp as long as a regular maintenance of dust removal or varnish application is considered.

The acrylic medium remains the most permanent of artist painting media to date. The acrylics have so far shown to retain their exceptional flexibility and continued resistance to UV light. The acrylic colors have maintained their brillance over these last 60 years and should continue to do so.

The exciting part of this story is that it has not yet been completely written. As these materials continue to evolve, new approaches and new discoveries may mitigate even further the anticipated changes in the acrylics. Maybe someday these coatings will fulfill the potential to be the most permanent of materials in the service of art.

FOOTNOTES

1 Gerry Hedley, “Measured Opinions, Collected Papers on the Conservation of Paintings”, Edited by Caroline Villers, United Kingdom Institute for Conservation 1993, pp.152-167
9 Data obtained with permission from Tom Learner.
12 In previous technical literature, GOLDEN GAC 100 has been listed as the most efficient block for SID. Current research has demonstrated that the GOLDEN Polymer Medium is more effective.
14 Dr. Greg D. Smith, Presentation at Modern Paints Uncovered, A Symposium Organized by the Getty Conservation Institute, Tate and the National Gallery of Art, Tate Modern, London May 16-19, 2006
‘Carl Plansky and Friends’
By Gallery Director, Jim Walsh

The Sam & Adele Golden Gallery is pleased to present an exhibition entitled, ‘Carl Plansky and Friends’ opening on September 25, 2010 and running through November 20, 2010.

This exhibition celebrates the legacy of painter Carl Plansky, founder of Williamsburg Handmade Oil Colors, as both artist and paintmaker. Carl’s works are displayed along with those of a group of his fellow artist ‘Friends’.

The ‘Friends’ included in the exhibition are Pat Passlof, Milton Resnick, Jake Berthot, Susanna Coffey, Cora Cohen, Bill Jensen, Margrit Lewczuk, Judith Linhares, and Mary Jo Vath. These ‘Friends’, several of whom knew Carl for nearly thirty years, are from a much larger group of intimates that due to limits of space, regrettably, could not be represented.

In the 1980s, Carl acquired a milling machine from painter Milton Resnick and immersed himself in the technology of paintmaking. In short order, his explorations blossomed into the full scale paintmaking enterprise that became Williamsburg Handmade Oil Colors. The burgeoning art milieu of Williamsburg, Brooklyn, provided fertile ground for Carl to develop his unique approach to making oil paints.

Carl reveled in searching out and sourcing rare pigments. His own needs as a painter motivated the search as well as the requirements of growing the color line for Williamsburg Handmade Oils.

As a painter, Carl was able to imbue time-honored pictorial subjects: still life, landscape and figuration, with a vigor and energy that was also informed by his familiarity with the materiality and unique characteristics of the paints that he created.

Carl Plansky, at the height of his artistic powers, died on October 10, 2009. His legacy is carried on proudly by Golden Artist Colors, Inc. This exhibition is dedicated to Carl Plansky and to all of his friends with whom he shared an artistic vision.

The SAGG hours are Monday - Friday from 8:30 a.m. to 4:30 p.m. Please note that for this show, the SAGG will also be open from 12:00-3:00 p.m. on the following Saturdays: October 2nd, 9th and 16th.