

Art is continually evolving through the interface of art materials and art technique. In October I was able to further my knowledge of art materials with five days of intensive training at Golden Paints, innovators of incredibly good acrylic products, in up-state New York, with three other international distributors – two Norwegians and a very cheeky Chilean!



Golden's Class of 2009

Golden are an employee-owned company run by the Golden family. Sam Golden started making paint in the 1930's for his uncle's company, Boccour, and in 1947 produced the world's first commercially available artist's acrylic – Magna, a spirit-based acrylic paint. Sam worked directly with New York artists in the 1950s and 60s to develop water-based materials specific to their needs, which lead to many innovations. He produced the first acrylic surface tension breaker for Helen Frankenthaler and Morris Louis, for example, allowing them to create their staining effects on raw canvas. There are interesting historical displays full of paint paraphernalia dotted around the corridors of the factory. A particularly funny sign next to some old-style containers reads: "These quart jars were abandoned when artist Larry Poons said he couldn't get his hand into the container." Now that's service.



Corridors of colour

This method of developing product for individual artists' demands continues to drive Golden's innovation. They were the first to release iridescent and interference colours, and the first to use Quinacridone pigments. At present, Golden has over 2000 new products under development, with around five in-house artists trialling and advising their team of highly experienced chemists, as well as making custom products. Totally new products that have recently hit the market are Golden OPEN Acrylics and Digital Mix Media grounds & gels.

Golden is situated near the town of New Berlin (pop. 2200), a five hour drive from New York City, in the middle of nowhere, surrounded by lakes and stunning Fall foliage. The original barn where Sam started Golden Paints in 1980 lies over the road from the factory, and is now being turned into artist studios and residences, which should be ready in two years.



The original Golden barn getting a make-over. The scale is deceiving – note the truck parked behind.

Last year, the Sam & Adele Golden Foundation, which administers most of the artist-side of Golden, opened a beautiful gallery space in the factory, complete with a large storage area for their collection. Artworks hang all through the factory, and there are plenty of signed posters for exhibitions sent in from appreciative customers.

Nowadays the company is headed up by Sam's son Mark. What a warm, friendly, family atmosphere. Being an employee-owned company, everyone is very focussed on producing the best they can, and each person is responsible for their specific contribution, whether it be hand-painted colour charts or milling the colour.

Melissa Schultz is in charge of one of the triple mills, where the colour dispersion (the pigment-rich/binder-poor initial stage of the paint) has more binder added and they are ground together. This process can take up to six passes through the mill before the colour is up to standard. Melissa is so good she was getting it perfect in just two, and was understandably proud.



Melissa's Napthol Red Light coming out of the triple mill.

Golden employs a number of Downs-Syndrome people from a local rehabilitation village, in repetitive manual tasks that would normally be too exasperating, such as box folding. This is another example of Golden's people-orientated production ethos, which includes the encouragement of employees to purchase shares in Golden Paints, and the warm "we're-in-it-together" feel of the workplace.

Over 8,000 hand-painted colour charts are produced at Golden a year, not to mention the million or so hand-painted swatches for paint tubes and mediums! If the paint technicians want to know which colours brush out well and which don't, Jeanne Bastarache is one of the people they ask, as she's brushing out every colour, every day, with exactly the same stroke. Her least favourite colours are re-assessed.



Hand-painted colour charts being made by Jeanne.

Working directly with Golden's paint technicians dramatically expanded my knowledge of how acrylics can be used. With Mike Townsend, who's been with Golden for over 20 years and helped develop their airbrush range, I worked with over 60 different materials, from their GAC range of specific pure acrylic resins, through their mediums, additives, varnishes, to OPEN and Digital Mix Media products. He really knows his stuff and dispenses it with plenty of humour. It helped that he was a Flight of the Conchords fan! I was able to ask about problems my customers had with processes going wrong and pick up all sorts of useful information. I found, for instance:

1. Using a hairdryer to dry acrylics is not such a good idea. During normal drying, the spaghetti-like acrylic polymers are controlled by surfactants and other substances to come together in a certain way, creating a stable film. Blowing heat onto the top of the paint film forces the acrylic polymers to dry differently from how the surfactants want them to and can adversely affect the coalescence of the film, causing problems with adhesion. Drying from the back is better – an electric blanket on the table top dries paint films very quickly, but overall, it is better to have air movement than heat.



My "OPEN-on-Molding-Paste-reductive-technique" eggplant.

2. Acrylic gels lose 45% volume as they dry. High Solid Gels only lose 35%. The shrinkage is the main reason for crazing in poured films. The surface quickly forms a skin, while underneath remains liquid. As this underneath layer loses water content, it creates tension on the dried surface and crazes over the wettest spot. To successfully pour a product (Polymer Medium works well), it should be tipped evenly over a tilted flat surface. The layer will be thin – the thickness that doesn't run off essentially. If this is done into a tray or capped guttering, the excess run-off can be poured back into the container. Care should be taken to place the substrate on a flat surface to dry. GAC800 can be added to product to prevent crazing, and also adding Fluid Acrylic colour will help, as this will increase the amount of solids in the mix.

3. Gesso is just one surface for acrylic painting (I had to get rid of my rigid oilcolour mindset). What surface do you want/like? Golden products offer a huge variety of surfaces to work on, from very absorbent (raw canvas using Acrylic Tension Breaker) to very non-absorbent (Molding Paste), textured like paper (try Fibre Gel spread with a painting knife) or soft and malleable (painting colour into a wet layer of High Solid Gel).



Textural painting using High Solid Gel can give a van Gogh-esque effect.

Ever wondered why Golden is the only company to manufacture “Molding Paste”? When the labels for the Modelling Paste came back from the printers, the spelling mistake was obvious, but hadn’t been seen when the artwork went out! Sam Golden looked at the labels for a moment and said “I love it – Molding Paste sounds great!” and another great product was born.

Of course, a Paint Nerd like myself was delighted to try many unreleased products from their Experimental line, such as the flaky Biotite Gel and amazing stringy rheology of the Spider Gel! Some Experimental products have now made it through to general release – Travel Colours, for instance. Interference paint interferes with white light so two opposite colours show when painted on a white surface, but on a black surface only one colour is reflected – it becomes iridescent. Travel Colour is an exception and reflects two (or more) colours even on very dark surfaces.

Golden’s quality control is thorough – at each step of production, six qualities are tested, and if one fails, it goes back. Golden keep wet samples of every batch of paint they make, so I was able to compare the difference in colour between wet colour samples of paint from 1988, 1993 and 2009 – there wasn’t any! They work very closely with conservators from the Smithsonian and Tate, who consider them to be the authority on acrylic paint. I’m not surprised - the staff *breathe* paint. Not literally, of course – their environmental and safety procedures are very strict. All the air from the manufacturing floor is filtered and Golden’s reverse osmosis filtration system allows them to re-use 70 percent of their water.

Our fabulous host, Paul Schulz, is, as well as International Sales Director, a chef and made sure our energy levels were up to the fast and furious learning pace by treating us every day and night to a great range of food and drink – no junk food out here! We had a hilariously raucous, four course dinner party at his house, where Tom Golden’s humour translated into all three languages and the Kiwi danced on a stool... For the day’s pick-me-up, we even managed to avoid the nasty American “black water” when we discovered our paint technician Mike roasted his own coffee beans...



Paul’s Poached Pear with Vanilla Cream...

One of our tutors, Scott Bennett, told us how he became involved in Golden 30 years ago. He was a student at Syracuse University, where he and other artists were used to getting 44 gallon drums of a raw acrylic resin called Roplex from an industrial manufacturer and splitting it into smaller amounts between them. In 1980, that company would no longer supply them, so Scott got in his VW Combi and drove an hour and a half to New Berlin, where he’d heard an old guy was making paint. Sam Golden welcomed him into the barn, and, as well as being incredibly passionate about the paint he was making there, he was genuinely interested in what Scott was doing and what he could produce to help him. The two talked paint for hours, Adele Golden brought sandwiches out to them, and eventually Scott left with a bucket of GAC100. I found that things have pretty much remained the same!

I am still on a high from the hospitality, knowledge, fun and hard work I experienced. Many thanks to Paul, Mark, Lori, Uly, Scott, and Melissa (for making the finest batch of Napthol Red I’ve seen!) at Golden Paints – you rock!