FLAAR Reports

February 2006

What does it Take to Start a fully professional and profitable Giclee Atelier?

Nicholas Hellmuth

FLAAR Reports

CONTENTS

Cover: Nicholas Hellmuth inspects Giclee at the Colour Consulting Group

Introduction to Giclee Print Shops in General

This FLAAR Report is a site-visit case study of the premier giclee studio in Greece, CCG (Colour Consulting Group). The purpose of this report is to assist print shop owners, operators, investors, and artists, to see what is involved in establishing a full-fledged commercial giclee production. Do though keep in mind, that this particular giclee studio has serious investment capital behind it. You may prefer to initiate more modestly, especially if you are an artist, and not a business person.

Every giclee print shop will be different. Most will be family-run, either husband and wife, parent with children, or rarely, just the siblings.

Many giclee printing places are effectively one-man shops. Some are one-woman enterprises. Neither implies that only one single person works there, though that does happen. Usually there are assistants, anything from interns from the local college or university, or professional assistants with years of prior experience. However a few truly one-person giclee printing companies can be found.

Other giclee print shops are factories, but these are usually for cranking out décor for low-bid sales to mass merchandisers.

Sometimes the giclee business is started by an artist, to print and promote their own paintings. More often a giclee business is initiated by a business person who knows one or more artists who are already looking for this kind of service.

Here are two of the three Granis brothers in front of their building. First impressions do count, and this building has the necessary accoutrements. It says "success" and "professionalism" from the minute you see it as you are parking your car in front.

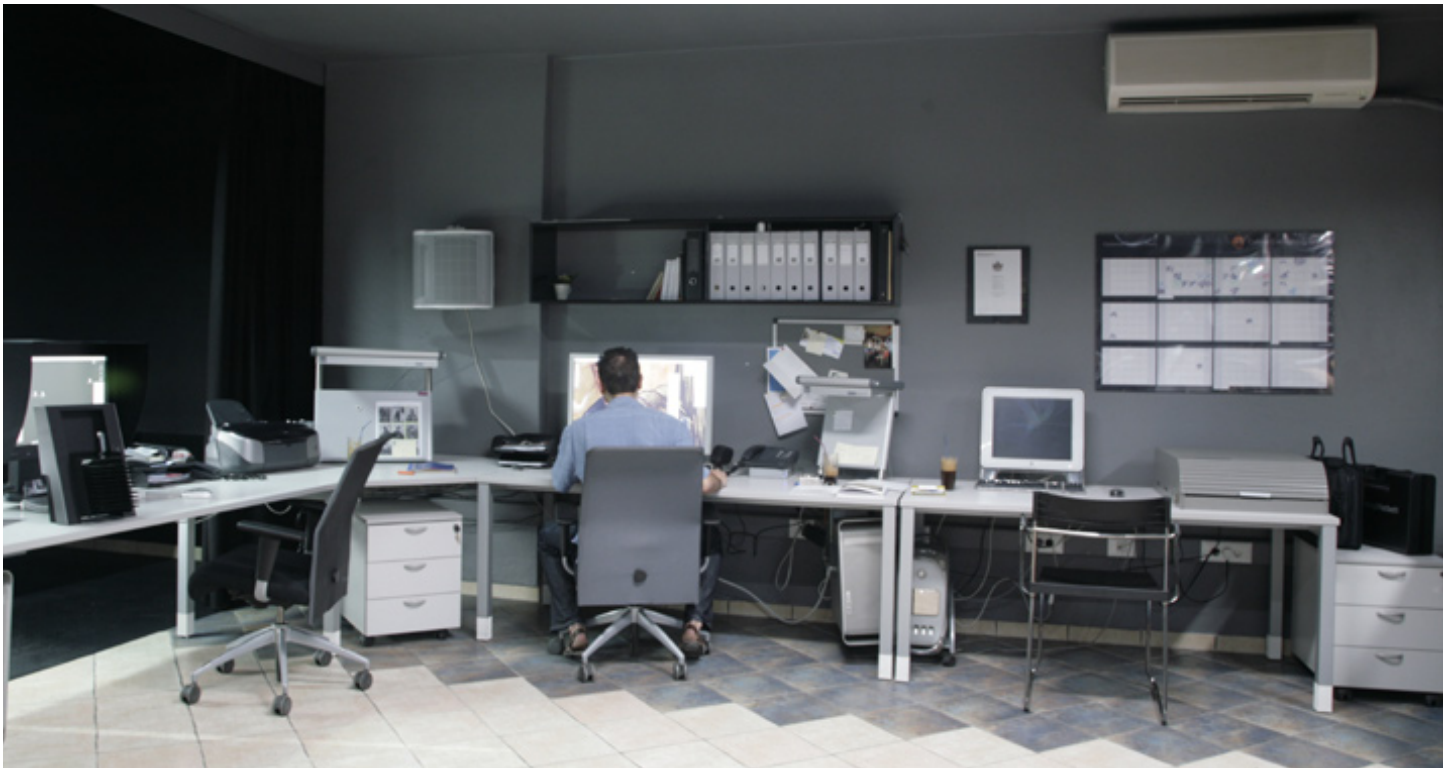
If the person running the printing place is an artist, the shop will sometimes be called an atelier, from the French roots for the workshop where the art is produced. Another word would naturally be studio: a giclee studio. This implies that the art is created, and printed, within the same environment.

Of course if the giclee is an add-on application to an already existing photo studio, general printing shop, or a sign franchise, then it will tend to carry the name of the original enterprise. There are no hard and fast rules. Nomenclature varies from the grandiose to the slightly misleading to conceptions that are wishful thinking of what a person would like to be their image.

As part of our "How to Start your Giclee Business" series, we are writing up several giclee printing companies that we have visited in person. The four we know the best are:

- Jack Duganne Atelier (he was one of the originators of the word giclee in the 1990's).
- Fine Art Impressions, a leading giclee studio on the East Coast, dedicated to quality.
- Squirt Printing, LLC, a fast-growing, innovative, and cutting edge giclee studio in Silicon Valley
- Colour Consulting Group

All of these print shops share several common factors: their owners are also their operators. In other words, the owner knows ICC color profiles inside out, knows photography, RIP software, inkjet printers, and artist's papers. This fact differentiates them from giclee or décor factories, where the owner may need a technician, giclee guru, or other hands-on operator to handle the digital imaging aspects as a consultant. Naturally, even the most non-digital owner, quickly picks up the jargon and learns the basics. But there is often a noticeable difference between hands-on owners and semi-absentee ownership.



This is a view of one side of the Granis brothers giclee work space. As you can see, it is a primarily Macintosh workflow, as was traditional in color management. It is open and has a welcoming atmosphere (not crowded and cluttered). In a word: it is, and looks, professional.

Experience in Inkjet Printing Helps

At least two of the Granis brothers have several years experience in the Galonis Print Shops in Thessaloniki. This is a general purpose reprographic and sign printing company. This company had everything from copiers to an early model of a Roland eco-solvent inkjet printer. Indeed I did a site-visit case study of this Roland printer the week before attending the Athens summer Olympics. This print shop continues, under the leadership of Mr Galonis and his son. The Granis brothers are now completely independent.

They do not do any copier type of basic reprographic printing; CCG specializes in color managed workflow of high quality giclee as well as recording of national patrimony using the Cruse reprographic camera-scanner.

Find a Niche and Be Really Good in this Niche

Antonios Granis has an MSc degree in digital color imaging from the leading university for printing practice and sciences in England (London College of Printing).

So the niche of CCG is color science as it relates to color management. In other words, if you get the color right, most of the rest of the needed quality will follow.

It is ironic to find how many print shops are not using ICC color management workflow.

Of course if you are a one-man print shop, you may start off not using a RIP. You need RIP software to make the first steps in linearization, setting the ink limit, and other basics that will lead to color management. But if you are an artist, especially the starving artist variety, your brain cells will probably rebel if the learning curve is too much the first year. If you are adept at tweaking the curves in Photoshop you can fake color management and end up with acceptable color: on one media with one ink on your one printer.

But those same tweaks may not yield the same results on a different model printer, or even other media on your same regular original printer.

Antonios Granis jumped in 100% into color management, a rich experience that most print shop owners and operators do not have the time to handle. By making color management his focus, CCG can earn money as a color management consultant, something most sign franchise print shops would not try to emulate. To survive in business it always helps if you can do more than one thing at once: in this case color management consulting and giclee printing.

Here is a GretagMacbeth Spectrolino, the elite spectrophotometer of the last several years. Granis has built a custom-made carrying case, since he often goes out as a consultant and works on-site in other print shops. We cover color management tools and software in a separate series of FLAAR Reports, available on www.wide-format-printers.NET.

High Resolution Digital Capture as another Niche

CCG has two scanners: an Imacon scanner for transparencies and a Cruse scanner for works of art. Although there is an attachment that allows the Cruse to scan negatives and transparencies, the Cruse scanner is really made to digitize objects, not film. So we would advise always to have a separate scanner.

Our choice for scanning transparencies would be a CreoScitex Eversmart Supreme, the new model that is USB or Firewire (not the old SCSI version). But an Imacon (now Hasselblad) scanner is an understandable alternative: they cost less than a CreoScitex scanner. The difference is that a CreoScitex scanner can do dozens of slides at once. An Imacon can handle slides or negatives only one by one. Multi-slide holders don't work for the cheap Nikon scanners nor for the substantially more expensive Imacon scanner.

Here is the Cruse reprographic system for digitizing paintings or any object that can fit onto the table. This is the Rolls Royce of professional systems for a giclee studio. Considering that CCG is a start-up, they sure did it right from the beginning.

The curtain is not because this is an operating table in a hospital; the curtain is so you can do your scanning without getting the color balance confused if there is incoming light reaching the scanning area. In a later photograph you will see the curtain when it is closed.

Here is the Cruse reprographic system for digitizing paintings or any object that can fit onto the table. This is the Rolls Royce of professional systems for a giclee studio. Considering that CCG is a start-up, they sure did it right from the beginning. The curtain is not because this is an operating table in a hospital; the curtain is so you can do your scanning without getting the color balance confused if there is incoming light reaching the scanning area. In a later photograph you will see the curtain when it is closed.

For digitizing paintings there are two preferred choices: a Cruse reprographic stand or a BetterLight tri-linear scanning back. Both use similar Kodak CCD chips. Both are tri-linear scanners. Yet naturally there are several specific differences:

- The Cruse can scan 7 paintings an hour
- The BetterLight can scan 7 paintings a day

- The Cruse costs $75,000 and upwards
- The BetterLight back costs $14,000 upwards; the rest of the camera system perhaps another $10K (A 4x5 Cambo or Sinar camera and appropriate lens).

- The Cruse is a fixed, locked, dedicated system
- The BetterLight is an open component system: you can mix and match components any way you want (within reason).

- The Cruse is large and not very movable (though a “portable” version is available)
- The BetterLight is fully portable,

The portability aspect of the BetterLight is worth emphasizing. Indeed I brought my BetterLight to Thessaloniki during my visit, to test it on the island of Lemnos to do infrared digital photography.

The non-portability of the Cruse has its benefits, namely that precisely because it is a fixed system, you do not have to spend any time aligning any shot. The entire system is permanently aligned during the week it is installed. This is one reason you can produce 7 scans an hour with the Cruse, whereas doing 7 to 10 paintings a day would be normal with a flexible BetterLight system (if you have high quality standards). The time that the BetterLight uses up is because everything on it is independent. Nothing is really fixed. You can use tungsten, fluorescent, ceramic discharge, HMI, or any lighting (except strobe or flash).

The downside of freedom to pick and choose components is that each component has to be moved into position and then the entire system has to be coordinated for shooting one object. A larger object, or a smaller object, or a different kind of texture, requires moving all the lights and re-establishing the overall system. This takes time (hours in some cases). The advantage is that you can custom design spectacular lighting effects. The downside is that if you custom design every shot, this takes time.

At BGSU all the student interns (co-op student job training) learn to run the Cruse after a few hours. They then run it all semester.

In Guatemala all the student employees also learn how to run the BetterLight. They then operate it successfully for years. But to get the full benefit of a BetterLight system you need personal training, most especially from Michael Collette. And some kinds of personality will never really have patience to set the BetterLight up carefully.

Another view of the Cruse scanner with the curtain opened so we can see the synchron table (a patented system). Although I generally use the reference as the Rolls Royce of giclee capture systems, in reality this is more like a Mack Truck; it is built the way you expect a German machine to be built like. At the right, that is a wide format trimmer, an essential piece of equipment. If you wish additional information on trimmers (and are in the USA), you can contact Mike Lind at www.reprographicdesigns.com, 281 492 2714, malind@msn.com

This is a polite way of saying that to operate a BetterLight requires more attention to detail and a serious dedication to quality. With the Cruse, the quality is close to automatic because everything is set at the factory, or during the installation process.

So each system has its pros and cons. FLAAR has, and uses, both systems. We have a 36 x 48 inch synchron table Cruse, and a brand new BetterLight Super 6K-HS (new as of May 2006). Both are of the highest professional standards.

At the right, that is a wide format trimmer, an essential piece of equipment. If you wish additional information on trimmers (and are in the USA), you can contact Mike Lind at www.reprographicdesigns.com, 281 492 2714, malind@msn.com

Quality Is Visible

Remember, it is not the printer that makes the giclee awesome, it is the digital capture device (and the workflow). Frankly I am impressed at the lighting results. The shadows look perfect. The fixed lighting on the Cruse performed admirably here. Normally you would tend to want movable lighting for art with texture and depth.

Here is the image capture on the monitor. You want the image on the monitor to be the same as the actual original artwork; and then the final print to be the same as the monitor rendition (and the original).

The original of this mixed media art consists of actual wood and actual turquoise colored stone. So you get real wood texture, plus depth at the edges of the wood. The Cruse captured this with impressive precision. Once the image was stunning, the Epson did a good job reproducing it.

Remember, it is not the printer that makes the giclee awesome, it is the digital capture device (and the workflow). Frankly I am impressed at the lighting results. The shadows look perfect. The fixed lighting on the Cruse performed admirably here. Normally you would tend to want movable lighting for art with texture and depth.

Why not do digital capture with a medium format or 35mm digital SLR camera?

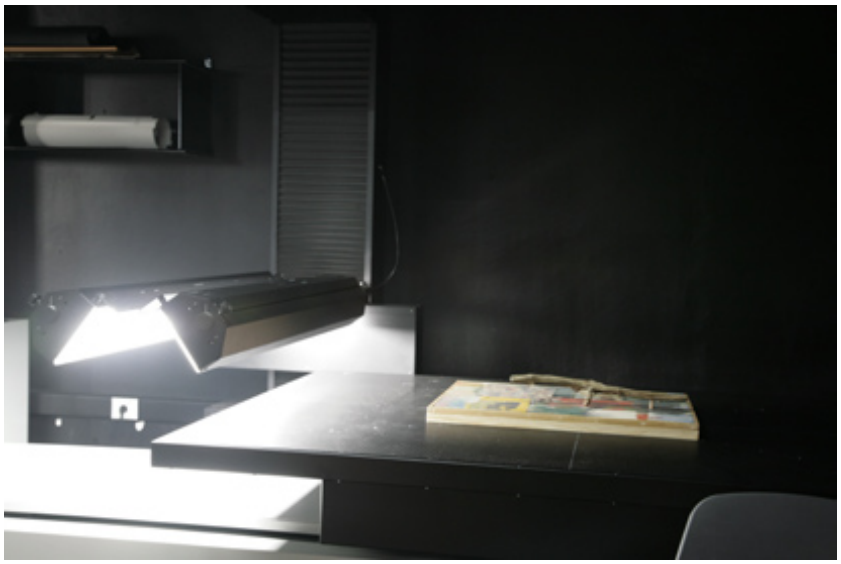
This is a valid question which we answer at length in several other FLAAR Reports, and in our courses and workshops. A BetterLight or a Cruse system is essentially made for digitizing paintings for giclee. This application is the bread and butter of these two relatively small manufacturers. In other words, they have to be good at digitizing for giclee because this is what keeps each company in business.

But no medium format camera manufacturer survives and declines on whether their cameras are used in the giclee workflow or not. One reason that so many camera dealers push medium format is that these are the cameras they have available. BetterLight and Cruse tend to be sold directly from the factory. This does not give much incentive to camera dealers or inkjet printer companies to stock them or to recommend them (Parrot Digigraphic being an exception, www.parrotcolor.com). Nonetheless, there are advantages in buying direct from the factory: then you get first-hand direct tech support, straight from the main source of knowledge and information.

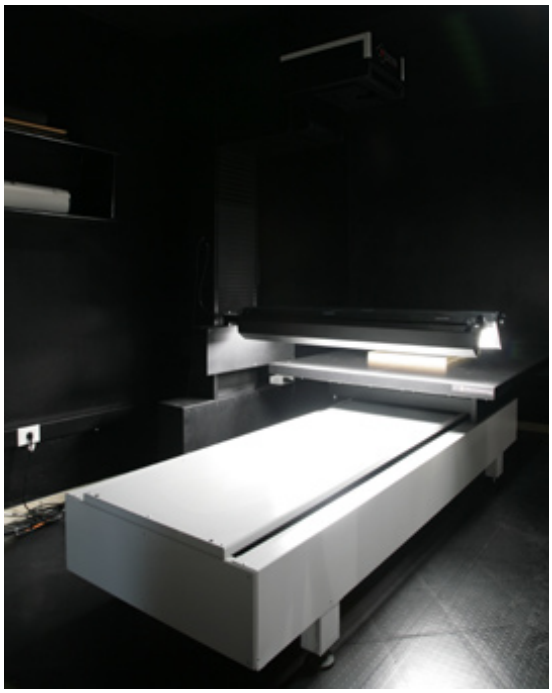
The only benefit I can immediately think of relative to using a medium format camera to digitize for giclee is that a medium format sensor can capture a wider range of depth of field.

On the subject of depth of field, here is about the most depth of field that you would want to try to tackle with a tri-linear scanning system of any brand: a mixed media artwork with a piece of driftwood or whatever the wood piece is that stands up off the painting.

Here is the image capture on the monitor. You want the image on the monitor to be the same as the actual original artwork; and then the final print to be the same as the monitor rendition (and the original).



On the subject of depth of field, here is about the most depth of field that you would want to try to tackle with a tri-linear scanning system of any brand: a mixed media artwork with a piece of driftwood or whatever the wood piece is that stands up off the painting.



Here is what produces that quality. The Epson can't print it if the quality is not in the file from the capture device.

Plus a medium format camera is more portable than even a BetterLight. And, a medium format camera can be used for earning money from photographing weddings, general portraits, fashion photography, a diverse range of commercial photography: everything but sports photography (that is the one thing that 35mm SLR is better at, and where 35mm traditional film is better still).

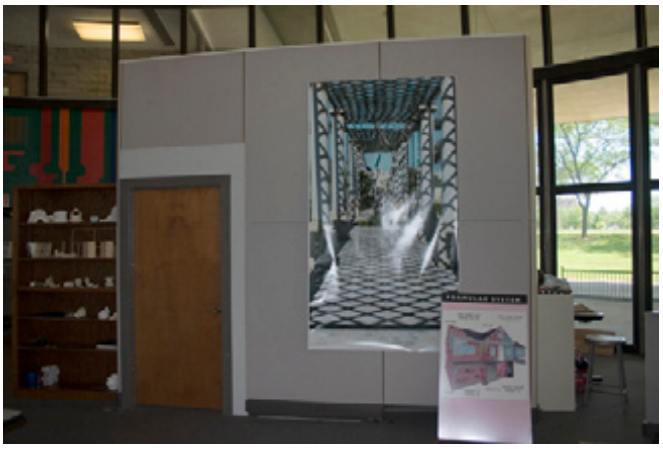
Yes, you can do commercial photography with a BetterLight. Dickie Mata, Jr, in Guatemala uses his BetterLight for general commercial photography, as to hundreds of photographers across the USA. But medium format has its definite advantages.

A final note in favor of the BetterLight, however, is that a large format scanning back costs much much less than the current-crop of medium format digital backs. Plus, you can obtain direct technical assistant from BetterLight relative to learning how to scan for giclee reproduction. No medium format camera manufacturer is yet trained in giclee workflow. Most probably don't recognize this as a major application.

Yes, some dealers sell medium format cameras specifically for the giclee market, but the associated equipment is not of the quality that most giclee ateliers need. The camera dealers want to sell the medium format back; the rest of the system is a necessary evil to them, since it makes the camera look more expensive. So you get a good camera but only second-rate lighting. Strobes, for example, are seldom the lighting of choice for giclee reproduction workflow.

The Cruse scanner/digital camera system is completely enclosed with a black curtain. Closing off your digital capture area is a mark of professionalism. In many digital studios in the US or western Europe, rents would probably not allow enough space for the luxury of building an enclosure for the Cruse, or for a BetterLight if you are using this. But ideally your capture area needs to be completely enclosed. This means no outside light coming in whatsoever, especially not from a window. And not from overhead lights either.

Notice the portable workstation at the left of the Cruse enclosure. It's on wheels, so can be moved around anywhere within the studio (at least on this floor; there are other work rooms upstairs).



Here is the Cruse room of FLAAR at BGSU. Since the ceiling is so high, it is not realistic to try to hang a curtain. So the Cruse is completely enclosed. The downside is that the space inside is a bit constricted, but it has worked okay for the last several years. I would prefer more space surrounding the scanner so I could get better photographs showing it in action. Anyway, the enclosure is gray, and keeps all outside light away from the scanning area.

The Selected Printers: Epson and Epson

Like probably 90% of the new start-up giclee studios, the Granis brothers selected Epson printers. Indeed, again like most giclee studios, they have more than one Epson printer. A Roland would have been a viable choice, but Epson printers cost noticeably less. And Roland is tending to develop only new solvent printers, not really any dramatically new water-based wide format printer technology. Whereas Epson comes out with improved models every two or three years.

Mimaki printers are nowadays only considered for a giclee studio if people are aware of the special inks that you can use in a Mimaki (but which are not as readily available for an Epson, Roland, or Mutoh). These would be the Symphonic Inks from Scott Saltman, tel 201 263-9177. Since these are inks made in America, there is probably not a source for them in Greece. And if there was, it is unlikely that most Mimaki dealers would be familiar with giclee workflow. Mimaki printers tend to be sold for dye sublimation heat transfer printing; their other models are primarily with solvent ink for the basic signage market.

For a similar reason it is unlikely anyone in Greece would consider an HP or Canon printer for giclee: there are no local dealers that know, understand, or care about the giclee market.

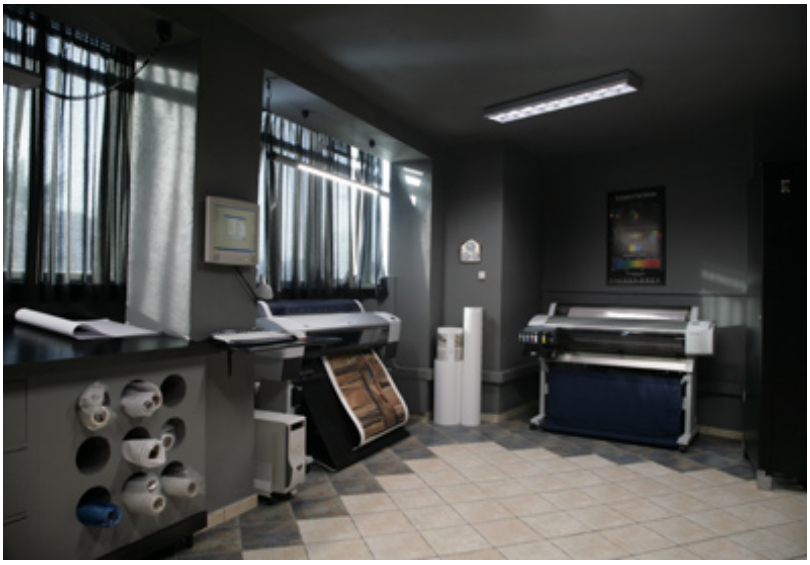
Proofing & Viewing Booth

Contact:

Colour Consulting Group
12, Korai str.,
Thessaloniki, Greece 54248

tel: (0030) 2310 309150
fax: (0030) 2310 314150
e-mail: agranis@ccg.gr

www.ccg.gr



Notice again that the entire room is painted neutral gray. This is one downside of our beautiful facilities provided by BGSU. The space is wonderful, both its location adjacent to the College of Art on campus, as well as its impressive layout. But the same features that make the room impressive (the large two-story tall windows) make it difficult to do color viewing and color matching. Not only does outside light come in, but the light changes by day and by hour.

Here we have opened the blinds so there is enough light to take the photographs. Normally a color managed room would have no outside light coming in at all. This room has blinds, and a curtain, that take care of that (when there are not visiting photographers from FLAAR doing a site-visit case study).

Not only do you need to have a room with no outdoor light coming in, you ought to have a viewing booth. This is one item that we have not yet added at the university, but the Lab Manager says he would very much like to have one.

Warning: Don't Assume you will Get-Rich-Quick

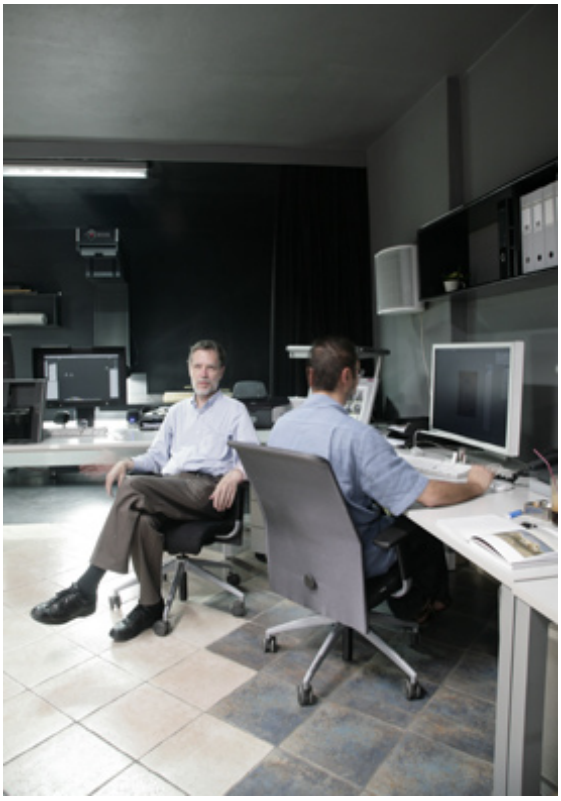
I neither have an MBA degree nor am I qualified to operate a major business. I am an entrepreneur who prefers to work with things that interest me, rather than amass monetary gain. This philosophy is a result of having attended Harvard for four years during the height of the 1960's cultural phenomenon. Hence I work in digital imaging technology resulting from a heritage of decades of doing large-format studio and location photography related to pre-Columbian Maya archaeology, and related studies of the natural resources utilized by the indigenous inhabitations of prehispanic Mesoamerica: tropical flora, fauna, and mineral resources.

So instead of joining my father's business as I was supposed to (HOK, Hellmuth, Obata + Kassabaum Architects), I decided to do my own thing, so I went to Guatemala while still in college, and after graduating did archaeological field work, especially that involved photography, for several decades. I am still in Guatemala as I write this.

So I am not a good person to write a "how to get rich" opus because I do giclee out of personal interest in seeing beautiful originals turned into equally impressive reproductions. But I have seen enough giclee companies that are financially successful to be able to provide appropriate guidance in forming a business plan. Plus I have seen how the giclee studio at two universities fail to make a profit year after year due to misguided philosophy (not mine in this case) and lack of entrepreneurial leadership, so I definitely know how not to run a giclee studio based on five years in-situ experience.

Most universities operate under the former East German manner of doing business: smile at everyone, appear to look occupied, don't rock the boat by complaining about anything, and don't innovate very much. I lived in former East Germany for several years (Halle an der Saale) and know their way of business stagnation well. I doubt if anyone at either university ever read any of the FLAAR Reports on how to improve their giclee services. They assumed they knew how to run a business their way, and that they did not need to hear from anyone without an MBA.

First issued July 2006



Everything in this giclee studio is first class, without being extravagant. Even the chairs are new, and comfortable. That's Nicholas at the left, enjoying a moment of quiet, somewhat worn out from a week covering FESPA Digital trade show in Amsterdam the previous week, plus an all night flight to northern Greece the day before.

One of the Granis brothers works at a Macintosh Cinema Display of ample dimensions. Again, this company put their hard-earned, hard-saved family money into the right equipment. Remember, it is not only that you need good equipment to accomplish high quality giclee, but your clients need to notice that you have high end equipment. The level of your equipment, and your staff expertise, and the good results, should command a premium price.

Trying to compete by cheap price is a downward spiral, and once you set a price too low, people will be upset every time you raise the price. The biggest mistake that BGSU made when they set up their giclee facility and general inkjet print shop was charging too low. They thought that by being low-price this would win friends on campus. It did, naturally, but it was a constant irritation to the people who had to pay the operating expenses when the income failed to come close to matching the cost of running the place. Plus, you can't keep many friends on campus if you have to close down because you are losing too much money.

This provides an overview of one side of the downstairs room, though there is much more to the left and behind the camera. From left to right: the black curtain is pulled back to show the Cruse scanner (that's the bright light near the left). In front is what appears to be a wide format trimmer. On the table you see an upright Imacon scanner. That's a Mac computer strapped under the desk. It is a good idea to get the computers off the desktop and out of the way.

In front of the monitor is Imacon's attempt to make a multi-slide feeding system. It does not work any better than the multi-side feeding system on an entry-level Nikon scanner. The only way to handle scanning many slides at once is to have a true flatbed scanner such as a CreoScitex.

Alongside Nicholas is a desktop printer for small proofs. Behind Nicholas is what looks like a small desktop viewing booth. There is another small desktop viewing booth to the right. And two more Mac computers.

There is no particular reason to have Mac computers though some people definitely prefer them, especially for a color managed workflow. Just realize that most RIP software works best on a PC. At FLAAR we are about 25% Mac and 75% PC. We use Dell computers because the Compaq computers we bought did not last very long (but neither did the iMacs). The G4 and G5 computers have longer durability; as do the Dell Precision Workstations.

A close-up of the not-so-functional multi-slide feeder. The Imacon is really made for one slide at a time, each fed manually.

Here is a detail of the large Macintosh server module. CCG has heavy duty equipment in every respect.

In a snapshot you can't appreciate the actual quality of these prints, but these are professional quality at every step of the workflow.

In addition to having a Cruse scanner/camera, CCG is also a Cruse dealer for Greece and the Balkan area.

Here is a final view of the quality that the Cruse scanner is capable of. Realize that almost any printer can reproduce this. Yes, even an Encad (if you are printing on a rough surface such as canvas or watercolor paper). Naturally an Epson has advantages, but if your original digital capture is top quality, almost any printer can reproduce that quality on art canvas or watercolor paper.

If you need to print on photo paper, then now you need a small picoliter drop size and a good dithering pattern. Here is where Epson is superior…. up through 2005. By the end of 2006 and in early 2007 there will be other brands of giclee printers that run circles around the current generation of Epson printers.

Realize this is a fuzzy JPEG taken with no lighting (in a darkened room). The original print is much better than this JPEG can possibly show.

We close with a wide-angle view of one section of the giclee workspace. We did not take any photographs upstairs or in any of the back rooms. But surely we will return another time. This is already the second time we have visited Thessaloniki.

Our next visit would most likely be to certify their workflow, including the overall production quality: from capture through finishing. They considered seeking certification elsewhere but quickly found that there was not really anywhere else, and definitely nowhere that was open to diverse capture and printing solutions. Any certification that requires you must have an Iris printer, or a piezo printer, or a Roland printer, is invalid (these are all great printers, but it takes more than a printer to make a good giclee).