

Handling and Framing Digital Artwork on Canvas

by Paul MacFarland, CPF, GCF

The continuing evolution of digitally produced artwork makes this medium another realm for the framing industry to master. The variety of mediums and processes present concerns about proper handling. Here I have presented some techniques to be used with digital works on canvas; textile-based digital prints produced by the various inkjet technologies still share many of the same requirements in the hands of the framing technician.

While artwork produced by piezoelectric and continuous flow printers is generally considered the standard for commercial fine art, artists will create on whatever machine using whatever inks and textile they determine produces their desired effects. The inks used may be water- or solvent-based with dyes or pigments determined by the artist's parameters.

As we all know, the digital fine art printing industry changes rapid-

ly. And while information on materials, machines, and processes is readily documented by reputable commercial art printers, it can be a gray area if the work does not come from an established shop. By defining a safe standard of practice in the frame shop that applies to all textile-based digital work, a lot of research time, and thereby the shop expense spent ascertaining the specific needs of a certain printing process can be avoided. Of course, this doesn't mean you should stop learning about the developments concerning digital art. The following are general guidelines about digital art on canvas to build upon as you learn more about handling this artwork.

Let us look at the care and framing of historic painting mediums on canvas as compared to digital fine art printing on canvas. Although the materials and technology used to produce both types of images are radically different, there are several parallels.

Substrate textiles are chosen for their performance characteristics as well as available dimension and often cost. Substrates of cotton, synthetic fiber (primarily polyester), or blends of the two are coated to accept specific printing mediums. Canvas priming mediums vary in traditional painting dependent upon the type of medium to be permanently bonded to it.. It also differs with the specific requirements of the digital medium. Textile substrates will always need an auxiliary support. This may be in the form of a stretcher (expandable), strainer (non-expanding), or rigid panel backing.

The surface coatings applied over textile-based digitals serve the same purpose as the varnish layer on traditional paintings—to protect the image from the environment at large while providing a gloss or matte surface that enhances and unifies the image.

Ultraviolet light is a primary



As digital art becomes commonplace and consumers increasingly display this media, it's important for framers to be educated about it. Knowing how to identify, handle, house, and store these works of art enables you to assist your customer in deciding how to frame their items. In this six-part, bimonthly series, "Digital Directions,"

PFM has invited several writers in the industry to discuss the topics related to this subject today.

This month, Paul MacFarland covers some considerations for digital art on canvas.

cause of fading (color shift) in both digital and traditional painting mediums. The use of non-fugitive pigments greatly improves the longevity in both digital and historic mediums, but additional protection is essential. For this reason ultraviolet-filtering, synthetic varnishes are now used for final surfaces on traditional painting mediums such as oil or acrylics. Ultraviolet filtering surface coatings are also employed for digital prints on textile that will not be glazed.

These surface coatings also provide a humidity barrier, (although in most cases not waterproofing), as well as a moderate amount of protection from abrasion and handling abuse. As with traditional paintings on canvas, the application of final protective coatings is the responsibility of the artist or printer, not the framer.

Handling and Framing Requirements

Denting, crazing, and surface abrasion is a serious concern with exposed (unglazed) canvas-based artwork. At all times handle these pieces with extreme care: wear white gloves and guard against any moisture exposure.

If the digital has a fragile surface (e.g. is not coated), it must be glazed. It is advisable to incorporate into the design an ultraviolet-filtering, anti-reflective glazing product. This may be acrylic or glass depending upon the specific needs of the client. Acrylic is a relatively poor thermal conductor and a good thermal insulator and, there-

fore, not as likely as glass to develop condensation between the glazing and the artwork with fluctuations in relative humidity and temperature.

Due to its flexibility, acrylic glazing is subject to deflection. This deflection is more pronounced when used in conjunction with a framed canvas than on matted artwork because there is less bearing surface for the glazing. Space the glazing as far away from the art as conditions will allow, remembering that a sheet of $\frac{1}{8}$ " (3.175 mm) thick by 48 inches (121.92 cm) square can bow up to $\frac{1}{2}$ " (12.7 mm).

For this reason large, framed works with acrylic glazing should not be laid flat. Care should be taken to keep acrylic-glazed artwork vertical during shipping and storage, the use of a Tiltwatch indicator (Masterpak) on the crate will register improper handling.

The rabbet lip of the frame must be padded to protect the bead edge of the digital from undue pressure and prevent it from sticking to the rabbet. A tool for rabbet isolation and padding is Volara (University Products), an archival, closed-cell, polyethylene foam available with a pressure-sensitive acrylic adhesive in $\frac{1}{4}$ " (6.35 mm) wide rolls. If the edge of the rabbet does makes contact (it should not, there should expansion space) with the artwork it should be lined with an aluminum barrier tape such as Lineco (University Products) Frame Sealing Tape.

To assure total reversibility, install the digital artwork in the frame using offset clips or turnbuck-

les in the same fashion as traditional paintings on canvas. Do not nail or screw the auxiliary support to the frame.

If installing the work in a float frame, you can use a recloseable fastening product such as Dual Lock from 3M, instead of screws through the frame and into the stretcher bars. This method will allow for more precise placement of the art prior to gently pressing along the bead edge to snap it together.

The framed digital on canvas should be backed with a lightweight rigid material (foam-centered board or corrugated plastic) to protect it and provide an environmental buffer. The backer board must cover the entire back of the artwork and attached to the back of the frame using stainless steel screws and washers or a reclosable fastener.

The practice of cutting air circulation vents into the backing board (popular for paintings in the latter part of the 20th century) has been proven to be a source of irreparable damage to the artwork. This holds true for digital artwork on canvas; the area of the artwork verso opposite the vent is exposed to rapid changes in relative humidity and temperature while the rest of the painting verso is not. This area of specific exposure leads to unequal expansion and contraction of the canvas, causing structural damage and adversely affecting the image quality as well as the value of the artwork.

After installing the hanging hardware to the frame (never to

the stretcher bars) attach a documentation label to the backer board with information on the handling and maintenance of the artwork. Specific information regarding a future preservation inspection by the framer two years from the date of the initial framing should also be included on the verso. ■

•*For information on stretching canvas: Stretching Fine Art Canvas, by Paul MacFarland (Picture Framing Magazine, Oct. 2000)*

•*Product sources:*

3M: www.3M.com/bonding

Masterpak: www.masterpak-usa.com

University Products: www.universityproducts.com