

Untarnished Dreams:

Metals for Digital Printing

Wendy Erickson

I often want the old time ‘look’ of a vintage print on metal without having the time or supplies needed to actually create one. I’ve had excellent results post-processing digital photographs with Nik Snapseed to achieve the grungy look I am sometimes after. But often an inkjet print on paper still doesn’t work.

There are some shiny new toys out there for photographers, in the form of metal or metal-look substrates as well as the ability to hand-coat your own choice of metals. I’ll explore the basic materials available in four different categories and discuss how you might use or adapt them for your own photographs.

Categories

- Prints on metals made by labs
- Metallic inkjet papers
- Pre-coated aluminum and metal plates
- Hand coated metals/metallic paper using InkAID

Labs and Digital Providers

There is a tremendous buzz regarding prints on aluminum substrates, especially for commercial photography and many labs provide this service using special coated aluminum plates using dye sublimation printing.

Dye sublimation printing has been around for a very long time. In simple terms, a digital photographic image is printed on a special transfer paper using dye sub inks. The paper that contains the image is then pressed onto a surface that is heated to 400 degrees Fahrenheit. The heat makes the inks transfer onto the substrate. The paper is removed and discarded, and the print is virtually permanent.

Most modern labs making metal prints use the ChromaLuxe brand dye sub process and materials. ChromaLuxe labs offer four types of metal prints, Gloss White, Gloss Clear, Matte White, Matte Clear. You can find the lab closest to your studio using the ‘lab finder’ feature on the ChromaLuxe website.



Two ChromaLuxe prints, Gloss white metal on the left, Matte clear aluminum on the right. The texture seen is in the image, not on the aluminum plates.

It shows labs in North America, Europe, Australia and the Middle East.

A ChromaLuxe lab made me a print using the matte clear aluminum, and I was impressed with the quality. It didn’t quite look like the tintype or historic process print I was after (it was perfect, with no imperfections) but it had a unique look. The lab also printed the same photograph on the gloss white metal for comparison. Because the white areas are the highlight areas, that print really popped. If you want to try the matte clear aluminum, I suggest making a couple of test prints with the lab you choose. On a final note, these metal prints are waterproof and boast long-term light stability when displayed indoors and out of direct sunlight. They are available in traditional photo sizes, up to 40x60”.

Booksmart Studio Printing offers printing services using their specially coated metals in sizes from 8.5x11" up to 20x84." These are the same pre-coated metals that you can use in your home or studio in a straight-pass inkjet printer. Since the ink sits on the surface of these prints, they must be coated with a

matte, semi-gloss or gloss overcoat. Prints made on this material are luminous and highly detailed.

Pre-Coated Metals for Home & Studio Use

Booksmart Studio coated metals allow you to print directly on prepared metal surfaces. The metal has a coating applied to accept most popular inkjet printer inks. These fine art printable metals are very durable once they are coated. Your inkjet printer must have a straight paper path option to use the products. The fine art metal series has an adhesive backing to make mounting easier, and that adhesive backing is optional in certain sizes.

Booksmart has a variety of samplers available for you to see each product and select the one that might best meet your need. Available in Satin Silver, Satin White, Matte Silver, Brushed Silver and Satin Gold. I thought the results were excellent due to the very smooth coating. Also the plates were quite lightweight, making for easier framing. Be sure to let these plates dry for a few days after printing them.

Metallic Inkjet Papers

Metallic inkjet papers aren't new, but newer and much improved ones are now in stock for photographers to experiment with. I tried eight new papers to compare base color, ink coverage and overall "look" using a 'test print' with the types of images that I wanted to print on metallics.

You can easily create your own test print using your own photographs. (The printer I used for the metallic papers and the hand-coated metals is the Epson Stylus Pro 3800. This printer is no longer "new" and I don't mind putting thicker substrates through it for experimentation).

Products

Simply Elegant Metallics - itsupplies.com

- Pure Silver
- Pure Gold
- Moonglow
- Chrome (Instant dry)
- Pearl (Instant dry)

Inkjet Station Premium Inkjet Media - inkjetstation.com

- Silver Metallic
- Metallic Gold Rapid (Instant dry)
- Metallic Gold

Inkjet Station Silver Metallic and Simply Elegant Pure Silver appear to be a similar if not the same product,



Simply Elegant™ Metallic Inkjet papers. (Left to Right) Pure Gold, Pure Silver, Moonglow, Chrome and Pearl.

giving identical results. Both papers are Resin Coated (RC). It's bright metallic silver is described as having a 'glitter' finish.

The D-max with the matte black ink seemed a little bit lacking. The same paper printed with photo black ink looked very good, with better D-max and clearer colors. For me, the slightly rough surface and the 'sparkly' appearance on these papers take a bit of image sharpness away.

Metallic Gold Rapid from Inkjet Station is an instant-dry RC paper that has a lighter gold base color. If you want a gold substrate but prefer more "realistic" highlights, this would be the paper to choose. Simply Elegant Pure Gold and Inkjet Station Metallic Gold gave similar results. Both these products have a 'glitter' appearance, a darker gold color and both are RC papers.

Simply Elegant Metallic Pearl is instant-dry and has a slight pearl-like finish, and I really liked the results: a very subtle 'look' of silver, great D-max and excellent color rendition.

Simply Elegant Metallic Chrome Gloss has a smooth surface, and just the slightest hint of a very pleasing pale silver tint.

The Simply Elegant papers require a solvent-based coating to protect the printed image. Let the papers dry for at least 30 minutes (preferably overnight) before spraying them.

Moab just announced a new Metallic paper called Moab Slickrock Metallic Silver 260, not yet available when this article went to press. This beautiful product,

compatible with dye or pigment inks, is a reflective metal-look substrate coated with an instant-dry coating. The surface is mirror-like, and because of its instant-dry construction it may be handled right away. Most of the metallic papers come in sheets and roll sizes—check with each supplier for availability. You can also purchase sample packs to try them.

Hand Coated Metals/Metallics Using InkAID Products For Home/Studio Use In Inkjet Printers

I've used InkAID products for many years now. It's a way to get a more 'handmade' look to digital inkjet prints. My previous article on the use of InkAID is available to everyone on the *photo technique* website, "The Artisan Approach to Inkjet Printing" from Jan/Feb 2011. That article covers detailed handling and technical information for InkAID products. Please refer to it for a "how to" using InkAID.

To successfully print on metals using InkAID you need to use an inkjet printer that has a straight paper path without tracking wheels. Everyday inkjet printers (like all-in-one printers) generally won't work with metals. The InkAID website has a number of informative instructional videos by artists such as Kathyanne White and Mary Taylor. If you are interested in this process I highly recommend watching the videos.

Metals/Products Used:

Silver letter-sized envelopes
 Brass sheets
 Copper sheets
 Copper mesh
 Aluminum printer plates
 Reynolds Wrap Aluminum Foil

The secret to printing on metal is getting the ink-receiver layer to stick! InkAID makes specific products to use when coating non-porous substrates such as metal. The company refers to all the products as "Precoats" and the best product to use directly on metal is Clear Gloss Type II.

Use foam brushes in a clean and dust-free workspace. Wear gloves when handling the coatings. InkAID provides MSDS for all the products on their website. Like anything new the technique has a learning curve. You'll have to test the products with your printer and make adjustments in print settings, etc. as needed.

Use more than one coating. Let the first coat dry overnight, and give it a second coat the next day. To



Some of the materials used to make metal and metallic prints.

make sure the coated material makes it safely through the inkjet printer, tape it on all four edges to a carrier sheet (a sheet of inkjet paper works well) or tape a short strip of paper to the end to use as a leader.

The silver envelopes from the stationary store worked well, this is a crisp paper and color rendition was great. This paper could be folded, and the surface looked like old-fashioned metallic wallpaper. Stationary and art supply stores sell sheets of silver paper. If the paper becomes deckled from being coated, you can gently flatten it by ironing the uncoated side.

Thin brass and copper sheets were purchased at the local art supply store in 4x10" sizes and varying thicknesses. On one print I could see where I didn't do as good a job coating the brass, so it's really im-



Ready-to-print Booksmart Studio metals.

Image courtesy of Booksmart Studios



Print made on double coated brass sheet.

portant to make sure you have good coverage when coating the plates. Rubbing the metal with extra fine steel wool before coating might also help coating adhesion. These loaded fine in the front loader on my printer.

Copper mesh was a great surprise. It's a fine wire mesh that looks almost like fabric. It's thin and flexible and I had no problem coating it or getting it through the printer. I taped the mesh to a letter-sized sheet of inkjet paper and used the rear loader on my printer. Keep in mind because of the mesh, you do not get a smooth photographic image like you would on paper. This material also comes in rolls.

A friend gave me a few uncoated aluminum offset printer plates. These are called 'blanks' in the printing trade. There is no chemical coating on them so they are perfect to use with InkAID. I taped a sheet of inkjet paper to the bottom of the sheets to act as a leader and fed it into the printer using the rear slot. They worked very well. Finally my favorite, Reynolds Wrap! I think I love this the most because of all its imperfections. It's a little difficult to coat and if your work surface



Printed blank offset plates showing leader paper attached.

isn't smooth you will pick up tiny imperfections from whatever is underneath it. I'm drawn to its fragility, delicateness and thinness. I bought a 16" roll of foil from the supermarket for \$5. Use a solvent-based varnish like Krylon Crystal Spray or Golden MSA archival varnish over InkAID Clear Gloss Type II.

Did I get the vintage look I was after? Not exactly. There is often an (unspoken) fine line when the 'craft of photography' gets confused with "crafts" but in the case of metals I think that line could be crossed, especially if you are interested in making photo collages, or three dimensional art. You can add paint to metal prints, and scratch or emboss them. I tried some oil pastels on one metal plate and got a nice result. I can see applications especially in jewelry making and for beautiful handmade book or portfolio covers.

Think about how it might work for you, from brilliant glossy commercially made display prints, to delicate handmade prints on aluminum foil. Metal has an edge to it, no matter how you look at it.



Detail of oil pastel applied to print made on blank offset printing plate.



Print made on coated Reynolds Wrap aluminum foil. Tiny imperfections add to the handmade look of this delicate print.



Print on double coated copper mesh.

All Images © Wendy Erickson

ENTER READER RAFFLES!

Win Booksmart Studio Metals samplers and InkAID sample kits! Enter to win a sample pack of Booksmart Metals (We have two packs to raffle, one thick and one thin sample pack). Enter to win an InkAID sampler kit! (We have two kits to give away).

Send a separate email for each raffle to rknight@prestonpub.com with the subject line Booksmart Metals Raffle and/or InkAID Sample Kit Raffle, and include your name and shipping address in the body of the email. Winners will be randomly selected and notified at the end of April. Good Luck!



Wendy Erickson is a photographer, writer and teacher. Her photographs and writings have been widely exhibited, and published in numerous books and articles. Wendy teaches photography at the University level and as Editor, is putting the technique back into photo technique Magazine.

Resources

Labs: Booksmart Studio-booksmartstudio.com; ChromaLuxe -chromaluxe.com; Copper wire mesh: amaco.com; Coatings: inkAID-inkaid.com; Papers: Inkjet Station-inkjetstation.com; Simply Elegant-itsupplies.com; K&S Engineering-ksmetals.com; Moab Slickrock Metallic Silver 260-moabpaper.com; Reynolds Wrap-your local supermarket



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