Inkjet Printing on Ceramic Tiles

In-Line Ceramic Ink Printers & Test Printers for Ceramic Design Samples

What it is like to attend Ceramics China trade show

Nicholas Hellmuth and Maria Renée Ayau
What is a “ceramic printer”?

At SGIA, ISA, or FESPA, “ceramic printers” are often desktop sized dye sublimation units (onto tiles or coffee mugs coated with polyester). A polyester coating is needed on the surface of the mug or tile to accept the dye sublimation chemistry.

At Ceramics China expo, a typical printer costs half a million dollars. The entry-level is probably about $100,000. A printer may weigh a few tons (so not desktop sized).

So the ceramic printers we discuss in this FLAAR Report are industrial printers. About 70% are for installing in-line in ceramic production factories. These use inorganic ceramic frit ink which is subsequently baked into the tile surface in a kiln. No polyester coating is needed.

The other 30% of the printers here at Ceramics China expo are for proofing or for decorating small batches of tiles (usually after firing). Most of these are traditional UV-cured printers. But one or two have been retrofitted with rotary conveyor belt strips for moving the ceramic tiles.

The printers at Ceramics China are primarily for flat tiles: wall tiles and floor tiles. These can be used outside, on the façade of the building, but most are used inside. These are not only bathroom tiles, in fact most are for lobbies, halls, entrance areas of fancy modern architecture.
Really attractive print samples

Since UV-cured ink can produce substantially more color gamut than inorganic ceramic frit ink, it is no surprise that the most colorful print sample was in a booth featuring UV-cured ink.

Here is a double page spread showing the nice examples in the booth of Skyjet (Sky Air-Ship).
Innovative booth decoration

Most of the booths at the show exhibited walls with tiles, all with nicely decorative designs.

Here we present the two most innovative booth decoration designs.
Well designed Booth Decorations

More people stopped to look at this playful statue than stopped to stare at any of the pretty models in the King Tau booth (though a few brave souls did ask the models if their friends could take a photo of them next to the model).

Most common decorations at this expo were basic ceramic floor and wall tiles

In dozens of booths you could see digitally printed floor and wall tiles. Although we in USA tend to think of tiles mainly for a bathroom, actually there are more tiles in hallways and hotels. And these tiles are larger than the ones typically in a bathroom.
This is a ceramic production expo + a ceramic printer expo

There are many kinds of ceramics expos. Do not be confused by the use of the identical name, “Ceramics China” for a nice expo in Shanghai. The Shanghai expo is for finished ceramics, such as coffee mugs, architectural decorations, for the finished product more than the big factory machines that manufacture such products.

This is a polite way of saying, if you want to see inkjet printers for ceramics, skip the expo in Shanghai in 2014 and wait until the true Ceramics China returns to Guangzhou in 2015.
Here you can see the typical industrial production equipment which was in every hall at the expos.
Printers for Ceramics

We cover wide-format inkjet printers (for short-run producing or proofing) and in-line printers (usually narrow format).

Inkjet printers were in Halls 8.1, 7, 6.1, 5.1, 4.1, and 1.1

Docan UV-cured printer for ceramics

**Eastech**,

Although there was no printer we always enjoy visiting with Robert Pan, whom we know for many years.
Durst Pictocer HD
Durst Gamma 120 HD RS

FLAAR has been hosted to visit the Brixen factory of Durst in northern Italy five times and to visit the Durst factory in Lienz four times. Although we have not been at Durst for the last four years, we are aware of the quality of Durst printers.

In the booth of Durst Christian Harder, Sales Manager, Ceramic Printing Division, welcomed us.
The efi Cretaprint booth was filled with clients and visitors every day. So we did not want to interrupt the managers. But we did say hello to Ghilad Dziesietnik, Sr VP Chief Technology.
Flora

Until we can visit a factory, and inspect a printer in-situ in an actual ceramics factory, it is not acceptable to issue an evaluation. But we still enjoy seeing the printers in an expo booth.

Hope

Two printer manufacturers did not allow photography of their printers, so once they asked us not to take photos, we stopped. Of course there were dozens of other visitors using cell phones to take photos. But we are not interested in copying printers. Our goal is to provide knowledge about which companies offer which kinds of products.

Since there were so many booths which encouraged us to spend more time to learn about the advantages of their printers, we tended to devote more time to the companies who had a welcoming philosophy and who encouraged us to do photography so our thousands of readers can learn the brands and models which we recommend.
Human Digital

Altogether our readership, of the FLAAR Reports, is worldwide: print shops, architects, interior designers. So we prefer to show them the products where the booth personnel encourage us to stay and take lots of photographs.

We had several informative meetings with CEO, Mack Xin, who is knowledgeable in the world of textile printers, UV-cured printers, and now is moving carefully into the new world of ceramic printers.
The KERAjet brochure was 1000% better in 2013. Although not many people in the booth spoke English, their brochure for 2013 was noticeably better this year.
King Tau

In past years we always visited with Sisi (who used to work at several different wide-format inkjet printer companies), but now it is Kathy Huang that we notice in the booth of Crystal. The CEO is understandably deep in meetings.

This was the largest booth, had the most ceramic printers, and the most brochures. Although Crystal has brought us to their offices in Guangzhou about two years ago, we have not been to the factory of King Tau, so we have no report nor evaluation on this brand of ceramic printer.
Longier

No printer in their booth, but Teresa Tang was on duty every hour every day in the Longier booth.

Longrun

Every year at D-PES and APPPEXPO, the young sales rep named Pigeon says hello to all the FLAAR Reports staff. She is very energetic and speaks English well.

I did not see Pigeon at Ceramics China booth, but another pleasant young woman of comparable age was in the booth the first day. She was hospitable and asked us if we wanted to visit the factory. But when we came back for the appointed time, the ride had switched schedules, so we did not get to the Longrun factory. Instead we visited the Mootooh eco-sovent printer and 3D printer factory.
If booth personnel encouraged us to do photography, we have material for a double-page spread.

If a company has brought us to their factory, so we can better know about their products, we give them a double page spread.

If a company owner, CEO, or top manager is available for a discussion when we are in their booth, we give them have comments to create a double page spread.

But there is not space to provide every company a double page spread since the file size has to be 4.9MB (has to be below 5MB). Otherwise, a file over 5MB is too large to send as an attachment in many e-mail systems.

So we are happy when a company does not allow photography of their printers: it makes it possible to devote that space to other photographs of other products.
Skyjet
UV Flatmaster FT3020

Evan Song was the sales person we spoke with each time we visited the nicely decorated booth of Sky Air-Ship. Their designs for the tiles were the most artistic, and most original, so we list them earlier in this report as deserving an award for nice visual appearance of individual tile samples.

Sky Air-Ship is a traditional UV-cured printer; a comparable Skyjet printer was at the China Glass expo the previous week.

Sky Air-Ship has flown us to their factory twice, so we know the company well.
Teckwin had two exhibits, in hall 5.1 they had a PQ300 UV flatbed. In the main printer hall Teckwin had an in-line printer and a modified flatbed.

Teckwin is a good example how a single dynamic personality can lead a company into international prominence. Stella Hu is this CEO. In the space of less than three years she has entered and been successful in sales, in the ceramic industry.
Printer equipment manufacturers

There are dozens of these manufacturers, but the largest booth was of KEDA, a resource also for Teckwin printers. In the nice KEDA booth Rock Zhang, Sales Manager, recognized us and came up to say hello.

This year we did not get to Foshan, but last year KEDA + Teckwin drove us to a factory to inspect Teckwin in-line ceramics printers at work out in the real world.
Ink companies

There is a separate FLAAR Report for inks, with mention of glazes. We list all ink companies who were present and show photographs of their booth, so you can judge the size of their presence. We also show some pigment companies but our focus is on inkjet inks.

In our TRENDs level report we speak about the trend towards using printheads for glazes and special effects inks.

In the TRENDs version we also list 100% of the major brands of ceramic inks, and compare with which were present at Ceramics China and which were missing.
Printhead booths

No Ricoh booth; no Toshiba Tec booth. So no interaction with these brands.

No Seiko printhead booth (since FY Union is master distributor, Seiko Japan would not be present).

Konica Minolta prinheads

We had an informative discussion with Hiroyasu Endou, General Manager, Component Business Division, Inkjet Business Unit, Konica Minolta. I see him at most international expos around the world so this time I made the effort to stop and visit with him in the aisles.

Free floor plan from Xaar

Each year, Xaar offers a helpful free floor plan map of all halls which have Xaar printheads. Such a Xaar floor plan is available both in China ceramics expo, at and at Tecnargilla in Italy (which I believe is every two years, in the autumn).

Most of the Xaar staff were out visiting clients, and their booth had primarily Chinese language presentations to eager local visitors, so we did not see the people we know. At Tecnargilla we had more time to visit the Xaar booth.
There is no Ceramics China 2014 from current organizer

The next “Ceramics China” expo in Guangzhou is 2015. This is organized by Unifair Exhibition Service Co., Ltd together with China Ceramic Industrial Association.

So clearly someone else will be staging a ceramic expo in 2014 and it will not be in Guangzhou

This is a rival expo, Ceramics, Tile & Sanitary Ware China China 2013, April 2013, in Shanghai. But I never heard about that, which is why I attended the one here in Guangzhou (which, after all, is near Foshan, the heart of ceramic factories of all China).

Ceramics, Tile & Sanitary Ware China 2014 (note they also call themselves CERAMICS China 2014) will be in Shanghai. But the Shanghai expo seems to be more on the finished product. The Guangzhou expo seems to be more on manufacturing and decorating the ceramic tiles. FLAAR does NOT intend to attend the Shanghai expo (because we do not expect to see many, or any, printers there). We will wait until Guangzhou 2015.

So I would expect the Guangzhou venue in 2015 to have most of the printer companies.

FLAAR covers ceramics expos around the world

We are preparing a new report to list (and evaluate) expos around the world on ceramics, as well as ceramic trade magazines and web sites on ceramics.

Last year we had several reports on Ceramics China 2012 (a free report and a special TRENDS level coverage).

Then two of us spent several days at Tecnargilla, the major ceramics printer and ceramic ink and glaze expo in Rimini, Italy. Again: one free report and then a separate comprehensive private TRENDS level report.

Now we are preparing a series of FLAAR Reports on Ceramics China 2013 here in Guangzhou.

If you wish to obtain the TRENDS level reports, ask to be invoiced by writing FrontDesk “at” FLAAR.org.
Expo organizer of Ceramics China did an exemplary job

The week before Ceramics China I was at China Glass. That Glass expo, in Beijing, was inexpertly organized. The Ceramics China was professionally organized. Let's look at the differences.

At Ceramics China every single hall had a comprehensive list of what companies where in this hall. This information was in professional graphic design at ample size on an exhibit in front of each hall.

Then you also had the hall-by-hall map in the VISITOR'S GUIDE.

None of this existed for China Glass. There was no portable guidebook (only one heavy one for 50 RMB).

China Glass expo had zero maps or exhibitor lists which were visible. The web site of China Glass was not really usable. And, they did not adequately tell you which of two CIEC expo centers to ask for. Most foreigners thought the expo was in CIEC, so we all booked hotels near CIEC. But when we reached the trade show center, we were shocked to see that the glass expo was not here. It took 30 minutes to find a single person who could speak English in Beijing, to learn that the glass expo was actually at the CIEC New, out by the airport.

Every exhibitor with whom I have spoken said the organization of China Glass was poorly done. In comparison, Unifair Exhibition Service Co., Ltd. does a good job for Ceramics China. When we were in their booth Misue Leung recognized us and came up to say hello.
FLAAR Reports are read all around the world

Every day at Ceramics China total strangers came up to say hello and to introduce themselves. They said they wanted to thank FLAAR for all our publications which helped them decide: to decide which expo to visit, to decide which products to study; to decide on which ink and printer to consider.

We have been so occupied at expos around the world: glass, signage, 3D printers, ceramics, that we previously did not inform Unifair Exhibition Service Co., Ltd. or the China Ceramics Industrial Association about our worldwide coverage.

Since FLAAR comes from the heritage of modern architecture, we cover glass and especially ceramic technology. HOK Architects (Hellmuth, Obata + Kassabaum) was founded by the father of Dr Hellmuth, so the Hellmuth family name is well known to architects around the world.

So we are in actuality an overseas supporting publication (and our name and logo are in several other expo organizers web sites). We look forward to helping spread the word about Ceramics China 2015 to our readers.

Guangzhou Pazhou expo center is well known

There are three expo centers in Beijing, each one a distance from the other (if traffic, even longer). In Guangzhou there are two competing expo centers: directly across the street from each other! So everything in Guangzhou is more convenient.

The Guangzhou expo center has two Metro stops available.

To provide an idea of the size of this expo center here are a few photos. Keep in mid that there are entire rows of these giant halls. There is no expo center anywhere in the USA even half this size.

One Chinese expo center is larger than the entire Las Vegas Convention Center + any of the largest expo centers elsewhere in the USA (in other words, the biggest convention center in the USA is about half or a third the size of Pazhou.

If you include Poly World (which is next door to Pazhou), the total complex is perhaps the size of Atlanta + San Francisco + New York + Chicago expo centers put together.

But don’t worry, no one single expo topic fills any Chinese expo center completely.
Guangzhou is relatively easy to reach

Some international flights go direct to Guangzhou. Otherwise, transfer in Hong Kong, Beijing, or Shanghai.

All airports in China have all signs in English. Plenty of people everywhere in airports speak English.

China is a friendly hospitable country and airports are the same. I will spare you description of some airports in countries which are not as friendly and rather gruff and rough. And a few airports which are run down and rather pathetic (mostly in America, such as La Guardia).
We have separate FLAAR Report on details of Guangzhou

FLAAR teams have been to Guangzhou now for about six years. So we can help you understand taxi scams (similar to scams in New York and a few places in Europe).

We can suggest a range of hotels, from $50 per night up to $250 per night.

If you request a consulting session with Dr Nicholas Hellmuth at Ceramics China 2015, or any of the wide-format inkjet printer and signage expos in Guangzhou during 2014 (D-PES 2014, China Sign, Sign China 2014, etc) we will provide travel survival tips (based on our abundant experience).

There is a standard fee for consulting; you can download the prospectus.

PLEASE NOTE

To obtain a legitimate copy, which you know is the complete report with nothing erased or changed, and hence a report with all the original description of pros and cons, please obtain your original and full report straight from www.large-format-printers.org or other web sites in our network such as www.wide-format-printers.NET.

Your only assurance that you have a complete and authentic evaluation which describes all aspects of the product under consideration, benefits as well as deficiencies, is to obtain these reports directly from FLAAR, via the various sites in our network.