

# Wide-Format Textile Printers **UV-Cured Flatbed Printers** Fine Art Giclee Printers



## LECTURES, SEMINARS, CONFERENCES

## Introduction

The best way to introduce this lecture program is to show the audience for the PowerPoint presentation on wide-format printers for giclee by Nicholas Hellmuth.

In this giclee lecture naturally the coverage was primarily on water-based printers, but we also pictured UV-cured flatbed printers for giclee (WP Digital Virtu, for example; Durst Rho 700, etc.).

For a variety of reasons solvent printers, including eco-solvent, are not yet acceptable for serious giclee production. Not many earnest giclee ateliers use solvent; solvent is for lower priced décor. FLAAR tends to cover the higher quality giclee that would be worthy of museum exhibit.

This FLAAR Report is a photo essay on the three presentations of the FLAAR portion of this Forum of New Technologies:

- Wide-format printers for Giclee and fine art photography,
- UV-cured flatbed applications for interior design and architecture,
- and inkjet textile printing for interior decoration and clothing



*Nicholas Hellmuth giving a lecture on Giclée printers at Belgrade. About 450 people attended this lecture and then visited the printer product demos in the large spaces in front of this auditorium.*

These PowerPoint talks were the FLAAR component of the overall event (organized by IB-ProCADD). The parallel focus by the many other speakers was on 3D scanning, 3D rapid prototyping, 3D reproduction for cultural heritage, creating 3D architectural models in full color, and scanning of rare books with a special book scanner. These other aspects will be covered in a subsequent longer report on the entire event.

This Forum of New Technologies was held in the respective capitals of Croatia, Bosnia & Herzegovina, and Serbia.

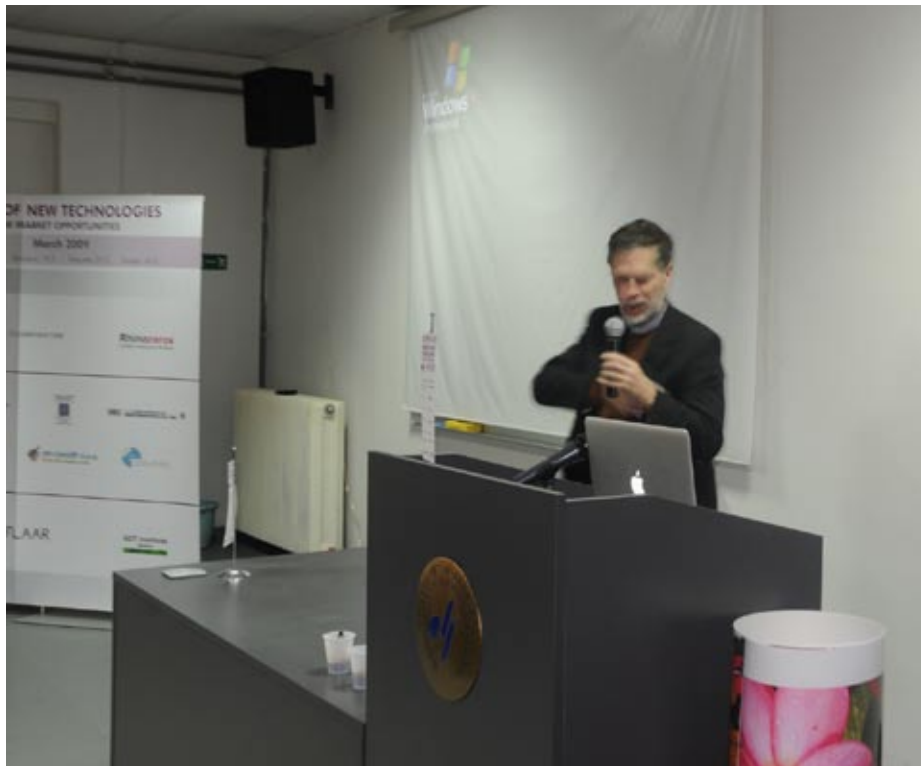
In the future, there will be an expanded program in other countries throughout Eastern Europe. IB-ProCADD is open to discussion with new partners and sponsors for the textile printing portion and for the UV-curable flatbed printing portion. As you can see from the photographs in this photo essay, there were plenty of people attending, and with additional sponsors we would expect correspondingly even larger crowds in other cities.

### ***Three FLAAR lecture topics in each city: Giclée was Keynote topic***



*Nicholas Hellmuth speaking about fine art Giclée: wide-format printers for fine art photography and giclée at Belgrade.*





*Nicholas Hellmuth lecturing about UV-cured and water-based printers for Giclée at Sarajevo University.*



Your university, or your organization, or your company (anywhere in the world) can also invite Dr. Nicholas Hellmuth to speak in your city. Just contact FLAAR at [ReaderService@FLAAR.org](mailto:ReaderService@FLAAR.org)



*Nicholas Hellmuth explaining the Giclée process. This PowerPoint presentation from FLAAR presents the entire workflow for fine art Giclée, step-by-step.*



*In each city three lectures on printers were given by Dr. Hellmuth: printers of all kinds for giclée (yes, including UV-curable flatbeds, so you can print giclée quality on glass, ceramic tiles, wood, stone or other artistic materials for interior decoration).*







*Here is Nicholas lecturing on fine art photography, Cruse reprographic scanners, BetterLight tri-linear large format digital cameras and the giclée workflow (including color management) in Zagreb, the capital of Croatia (immediately south of Slovenia and adjacent to both Bosnia and Serbia in respective directions).*



## ***UV-Curable Flatbed Printing on Stone, Ceramic Tiles, Glass, Metal, etc.***



*UV-cured flatbed printer lecture audience at Belgrade, capital of Serbia. Most of the audience were print-shop owners, managers, printer operators, architects and designers.*



*Dr. Hellmuth speaking on UV-curable flatbed printers in Zagreb.*





*FLAAR shows innovative methods of producing raised relief decorative tiles, for interior decoration. Crucial is to learn which of the 45 brands of UV-curable inkjet printers is precise enough to produce this kind of raised relief decoration (comparable to Braille but here useful for architects).*



*The UV flatbed, combo, and hybrid printer lecture topics of FLAAR cover Durst Rho, Grapo Manta, WP Digital Virtu RS35, GCC StellarJet 250, IP&I Cube 260, RasterPrinters (EFI Rastec), Sun LLC (Novosibirsk), and the brands that are good at decorating wood, glass, metal, ceramic tiles, and other architectural materials. For autumn 2009 and all 2010 we are adding other brands (and removing a few brands that have not kept up with new technology).*

*FLAAR includes discussion of, and ample photographs of, those UV-cured printers where we have visited the international headquarters, main demo room, and factory of the brand. If we do not have person in-depth experience from these visits, we do not mention or picture a brand (there are 45 brands of UV printers so we need to concentrate on the brands we know best from our own experience).*

***Textile printing:  
soft signage, interior decoration, fabric samples for clothing.***



*FLAAR PowerPoint presentation about textile printers and textile printing inks, Belgrade.*





*Lecture about textile printing in Belgrade.*





*The FLAAR presentation on textile printers begins with a history of inkjet fabric printers in past years, and then shows how the newer models today can do so much better. This particular presentation is at the University of Zagreb. But printshop owners, managers, and printer operators were present at each university event. This is because the sponsors were distributors of wide-format printers who are well known to all local print shop owners.*





*Nicholas Hellmuth lecturing about wide-format inkjet printers and inks for textiles at University of Sarajevo. A decade ago Encad was what was available at entry-level for a textile printer. Today DigiFab, Yuhan-Kimberly, and many other brands offer significantly more advanced technology and much better ink chemistry. But we like to show the past, present, and future in our lectures.*



## Trade show in each city by IB-ProCADD and sponsors



*In each city a large area was available for exhibits of printers and other digital imaging equipment (here at the University of Belgrade). The advantage of inviting printshop owners to a university environment is that plenty of space is available at a university, key professors can present informative lectures in their specialities related to 3D digital imaging, and obviously a university setting is helpful for students. It is a known fact that students who are trained today on a specific brand will, once they get a job, tend to prefer this brand when their company asks what new equipment the company should buy.*







*The advantage of combining 3D scanning and 3D printers with wide-format inkjet printers are multiple (aside from the fact that the Hellmuth family come from a long-time international background in architecture). 3D printers, such as ZCorp, are used by architects, engineers, and designers. Wide-format inkjet printers are used by architects, engineers, and designers.*

*Increasingly 3D scanners are being used to create digital images of ancient art and artifacts, which is a natural interest for FLAAR (see [www.maya-archaeology](http://www.maya-archaeology) for our archaeological background). And increasingly museums can turn to flatbed UV-cured printers to create exhibits and educational signage in both museums, botanical gardens, and zoological parks (FLAAR works in ethno-botany and ethno-zoology of Guatemala in addition to archaeological photography). Plus, IB-PROCADD is a Canon dealer so the exhibits and lectures are a workable combination of graphic design related to architecture and interior decoration.*





*Canon wide-format printers and scanners at foyer exhibit at the University of Belgrade.*



*Printing images from the FLAAR Photo Archive (Copan Maya archaeology images) with a Canon printer.*





*Welcoming desk with Dino, Zana and associates preparing the welcome table area.*



*Demo of 3D equipment for visitors by experienced staff of IB-ProCADD.*





Jure Sternad of IB-ProCADD explains the ZScanner 700 for 3D objects at the exhibit. FLAAR is gradually moving into 3D scanning. Our new web site on this subject will be open by September or October this year.



Simon handled both color management and wide-format Canon iPF printers at the exhibit.



Print sample of Canon iPF printer (photo by Nicholas Hellmuth of Flor de Mayo, a sacred flower of Guatemala).



Forum Entrance on the new downtown campus of the University of Sarajevo. A TV crew unloads their equipment. There were news clips and video clips on TV stations for every city where the IB-ProCADD program was held. These TV clips are additional possibilities for printer manufacturers (but only if their pertinent personnel are at the event).





*Nice view of Sarajevo after an early Spring snowfall, from our hotel up on a hill.*







*University of Zagreb exhibit hall. During the lectures was the only time to photograph the exhibits because as soon as there was a break then hundreds of people came out of the lecture halls and filled the exhibit area.*



*Exhibit of equipment for the 3D digitization and visualization workflow.*



*Nicholas Hellmuth checking some equipment for 3D objects.*



*IB-ProCADD exhibit of Solidscape attracted graphic designers, especially those who were interested in creating jewelry designs. These three people are looking at the Solidscape 3D printer. Behind them to the right is a Z-Corp color 3D printer (Z450), for reproducing cultural heritage, architectural models, etc. The final item is part of the rare-book scanner from Context.*





*Dr. Hellmuth trying to get a bite to eat while discussing digital imaging in the Context and Z Corp exhibit area. Context is the owner of Z Corp.*



*ZScanner 700CX and PX from ZCorporation.*



*Solidscape 3D printer from IB-ProCADD. In addition to the lectures by Nicholas Hellmuth, the overall program had many lectures by IB-ProCADD personnel. We will cover these lectures on 3D topics in a separate FLAAR Report later this year (as soon as we launch our new FLAAR web site on 3D scanning).*





*ZPrinter 450 for 3D printing.*



*Contex rare book scanner Copia A209+.*



Wide format Context scanner for drawings, CAD, GIS, etc.



3D samples printed on ZCorp 3D printing machines (rapid prototypers). This class of 3D printing machines use various brands of either thermal or piezo printheads to jet binder (as a glue) instead of ink. The ZCorp uses HP printheads which are thermal printhead technology







*Canon iPF 820 for printing CAD and comparable graphics. Canon was one of the sponsors of this event.*



*Solidscape T16, 3D printer, especially for creating jewelry prototypes.*



3D software is also crucial when entering the world of 3D imaging.



# Summary

Here are shots of all three lecture locations on giclee. Since this was the Keynote Address it attracted the largest audience.



Here are photos of the lectures on UV-cured applications for architecture and interior decoration. There were three different lecture themes going on simultaneously, so the audience after the Keynote Address was divided into "thirds" for all subsequent lectures. There were several speakers in addition to Nicholas.

In the future, if there is a physical presence of a UV-printer sponsor, the program would rearranged to add emphasis to UV-curable flatbed applications. It is, however, not necessary that a physical UV printer be brought to the event. Samples, brochures for a table top display, and several pop-up banner stands would be a good start.



Here are photos of the lectures on textile printing. Again, this lecture theme competed against the equally excellent presentations on 3D printing, 3D scanning etc.

But, if in the future, there is a textile printer company that wishes to have a fabric printer on display, or at least have a table-with-samples on display, then the textile aspect of the Forum would enhanced. Again, it would be enough to bring samples of diverse fabrics and different applications. It is not absolutely necessary to bring an actual textile printer (there is space for one, but for a 1-day event it is not crucial that a physical printer be available). Once you have the business card of an interested person, you can follow-up via your nearest demo center.

# Appendix A

## Lecture Program, Forum of New Technologies

This Forum of New Technologies was developed to appeal to

- printers (printshop owners, managers, printer operators),
- architects,
- interior designers
- graphic designers,
- artists,
- museum personnel (restorers, curators)
- individuals and institutes interested in digitizing cultural heritage
- goldsmiths and jewelry designers
- future experts! (students of all disciplines)

The Forum of New Technologies took place in March in three south-eastern European countries. The Universities in Zagreb, Sarajevo, Belgrade were the central points of ideas and progress of 2D (wide-format inkjet printing) and 3D technologies.

Country	Date
Croatia, Zagreb University of Zagreb, Faculty of Graphic Arts	17. 3. 2009
Bosnia and Herzegovina, Sarajevo University of Sarajevo, Faculty of Electrical Engineering	19. 3. 2009
Serbia, Belgrade, Belgrad University, Faculty of Mechanical Engineering	24. 3. 2009

Sample lecture program for Forum of New Technologies was similar in all three cities in the concept of an introduction by IB-PROCADD and local dignitaries, then a Keynote Address by Dr. Nicholas Hellmuth on wide-format printers for giclee and fine art photography (but including UV along with water-based Canon, etc). In Belgrade and other cities there were one to three local lecturers as well, but this one schedule provides the general concept.

The forum was organized by

- IB-PROCADD d.o.o., Slovenia,
- CADDprint d.o.o., Croatia,
- 5D-CADD d.o.o., Bosnia and Herzegovina,
- 3D CADDIT d.o.o., Serbia,

in cooperation with FLAAR Reports, SDT institute (Slovenia), engineering, art, graphic design, architecture, textile and associated university faculties, branch associations and expert organizations.

The program was joined together from many different spheres that are mutually interlacing and linking more and more each day: 2D and 3D scanning and printing, fine art photography, giclee, décor, architecture, creative design, cultural heritage, jewelry and souvenirs design and many more. Of particular interest will be learning how to print on wood, stone, glass, ceramic tile, and metal (both for signage and for architectural decoration).

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## ***Slovenia as a practical research center for advanced digital imaging***

FLAAR has actually been in Europe more than half of its years: three years in Zurich, Switzerland, eight years in Graz, Austria, and nine years in Germany (all while having its main offices in USA and always one in Guatemala). This is because photography of cultural heritage and especially digital imaging are worldwide endeavors. Our first HP Designjet printer was evaluated in Germany. Dr Hellmuth's PhD is from Karl-Franzens Universitaet, Graz. The German language has always been one of the major languages of science and research.

Since Ljubljana is only a few kilometers from the former research library of FLAAR in Graz, and since a leading center of 3D scanning and 3D architectural renditions is in Ljubljana, it is hardly surprising that FLAAR is dedicating more time in this area. Both Durst factories are not far away; WP Digital is within reach, and GRAPO is also not distant. 3P Inkjet Textiles is also within reach. Plus IB-ProCADD has multiple Canon printers, there is a local Mutoh UV printer dealer in Ljubljana, several large printshops with UV printers are accessible in many areas of Slovenia, Other distributors such as Azon are only two hours south in Croatia. Plus IB-ProCADD has partners and affiliates in 3D digital imaging hardware and software throughout the region. So Slovenia is an ideal location to do research on the full range of advanced digital imaging.



# Appendix B

## Sponsoring Companies



The forum was sponsored by Canon, Z Corporation, Rhinoceros; organized by IB-PROCADD d.o.o., Slovenia, CADDprint d.o.o., Croatia, 5D-CADD d.o.o., Bosnia and Herzegovina, 3D CADDIT d.o.o., Serbia, FLAAR Reports, SDT institute, faculties, branch associations and expert organizations.



We appreciate the sponsors of the Forum in the first three cities. Here on this page you can see the results.

If additional sponsors are available for other cities, IB-PROCADD has plenty of experience organizing these events. And FLAAR obviously has abundant experience lecturing to an international audience of printshop owners and managers.