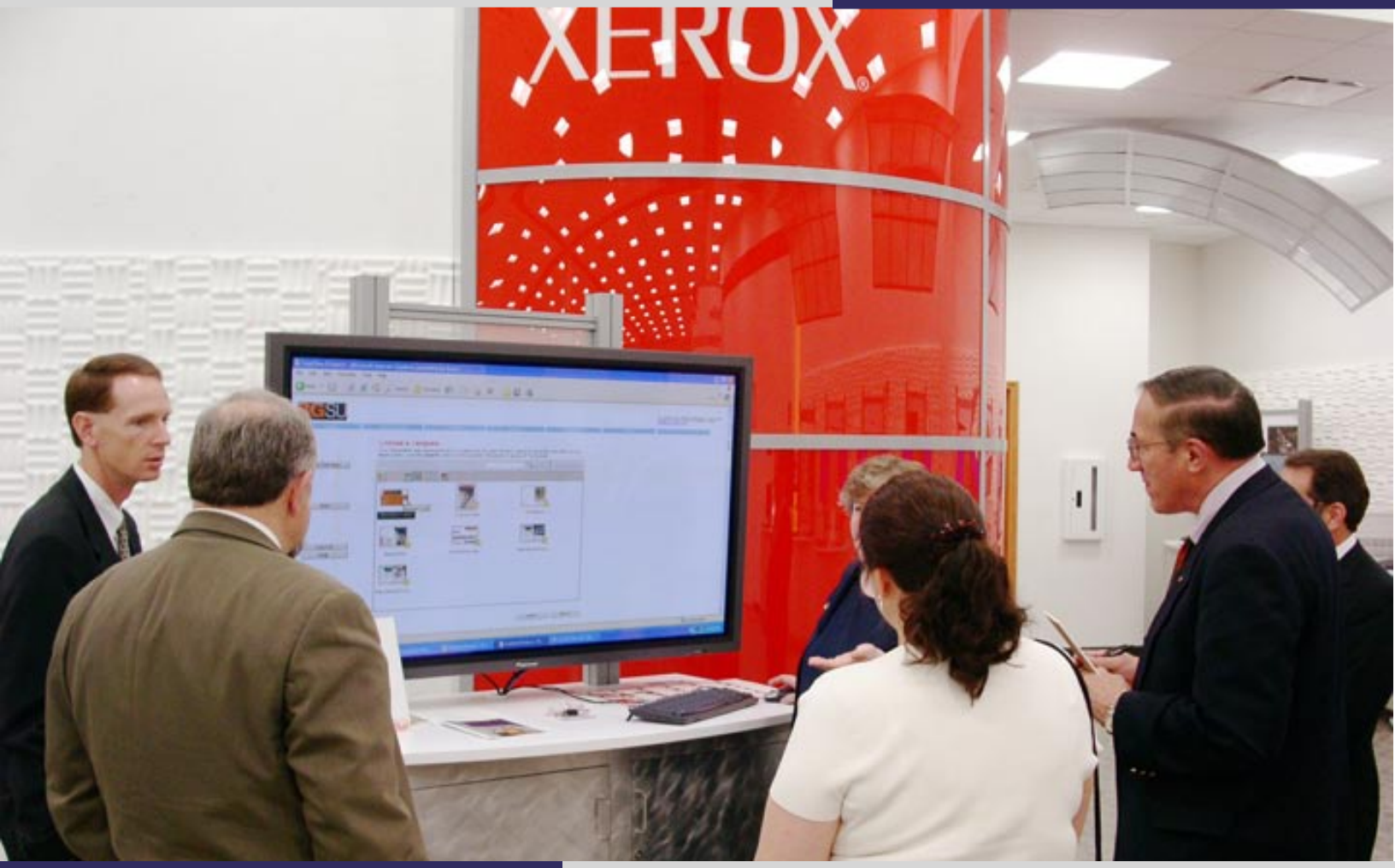
FLAAR Reports

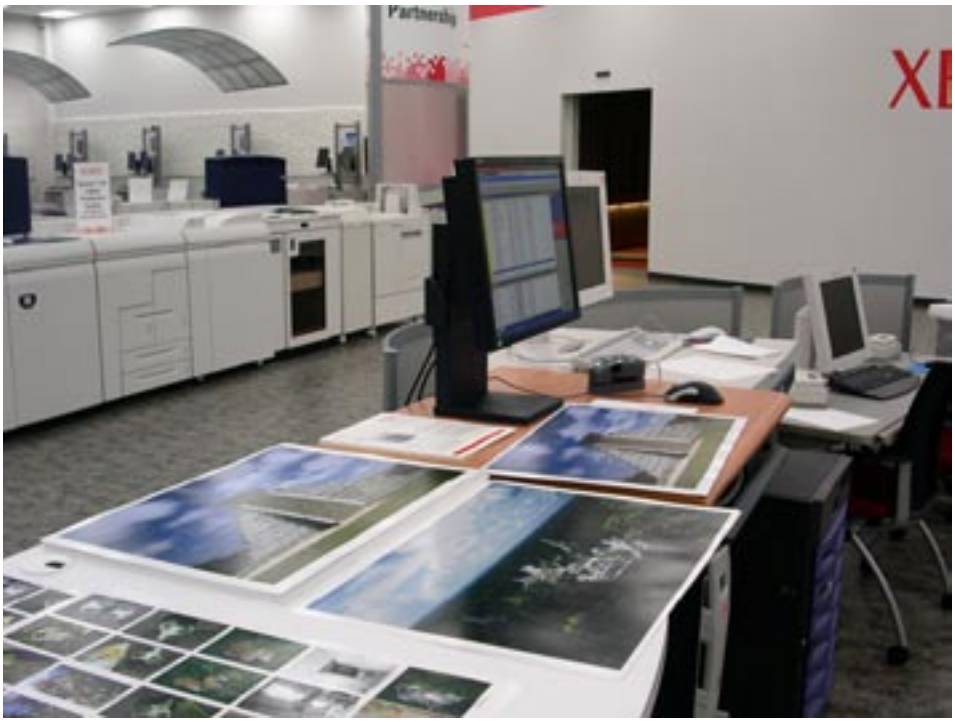
The Potential of a Variable Data Short Run Digital Press Technology for the FLAAR Photo Archive



The Potential of a Variable Data Short Run Digital Press Technology for the FLAAR Photo Archive

FLAAR + BGSU

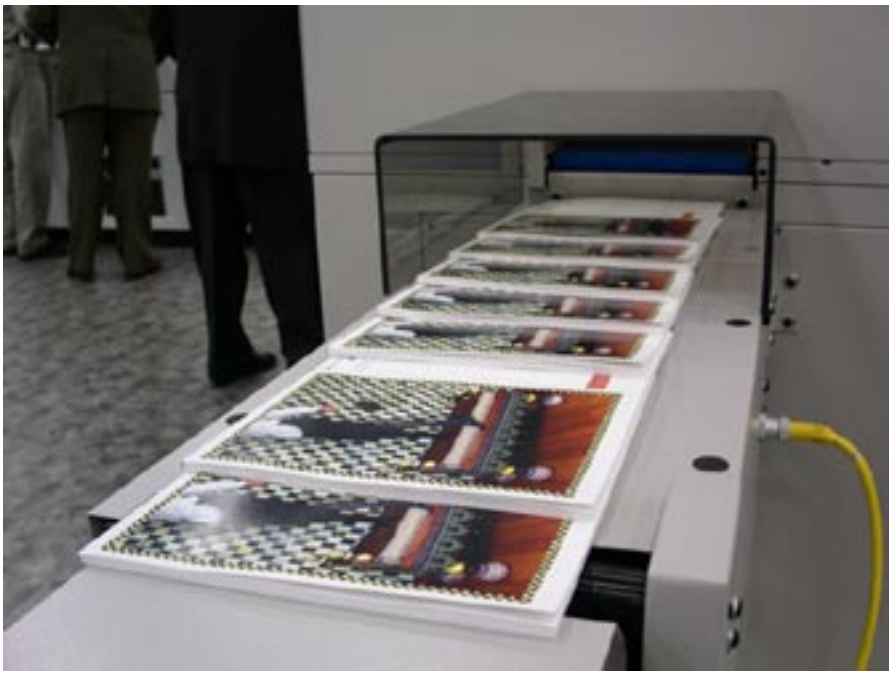
FLAAR Report 2005



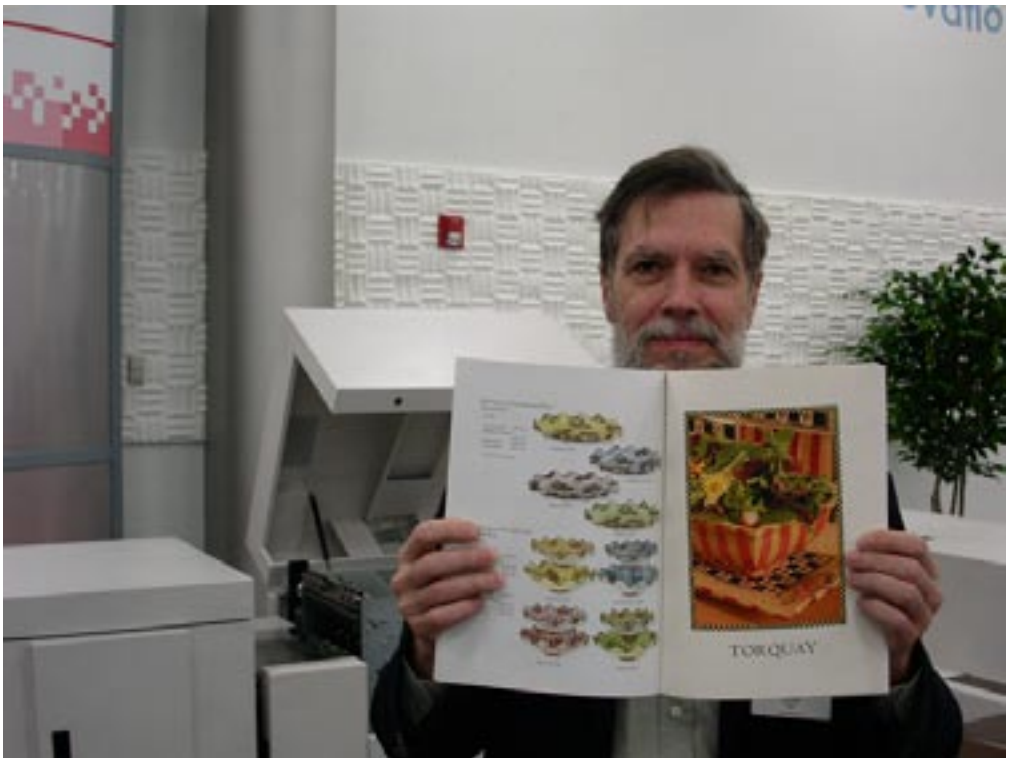
Here is the Gil Hatch .Center at Xerox headquarters in Rochester, New York. The picture at the top shows samples of the FLAAR archive that have been printed on the Xerox iGen3.

So one aspect of our personal interest in variable data short run digital presses is, for example, to be able to take "all hieroglyphic inscriptions of Belize," and print out a complete hard-copy set of these images, at large size, and send them to Belize for their own library/ archives. Then to coordinate grant opportunities with pertinent epigraphers or iconographers in the US, and obtain grants to print out complete hard-copy sets of all these glyphs, for the libraries of the universities or museums where epigraphers need this material. This way you don't have to be delayed by having to wait for a formal publication.

Then other archaeologists, who are teaching iconography, epigraphy, or pre-Columbian architecture, could request customized, even individualized, course reference material, for their students, from the FLAAR archive. All nicely printed, and bound, and delivered.



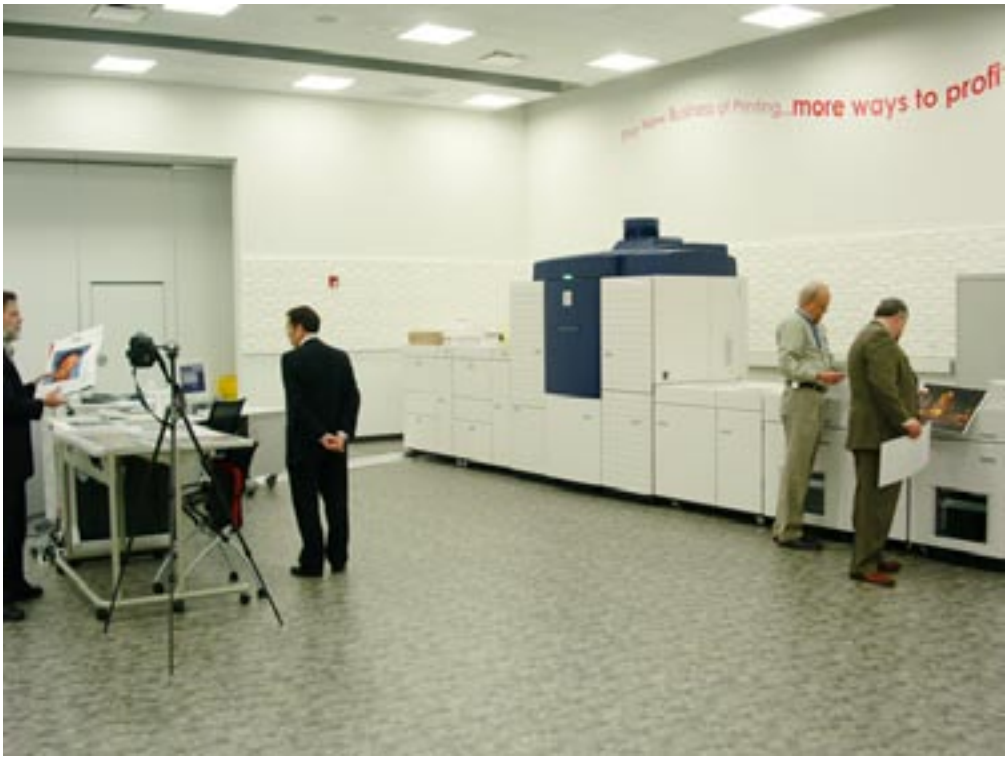
Here are samples of other photographs by other photographers, coming off the Xerox iGen3.



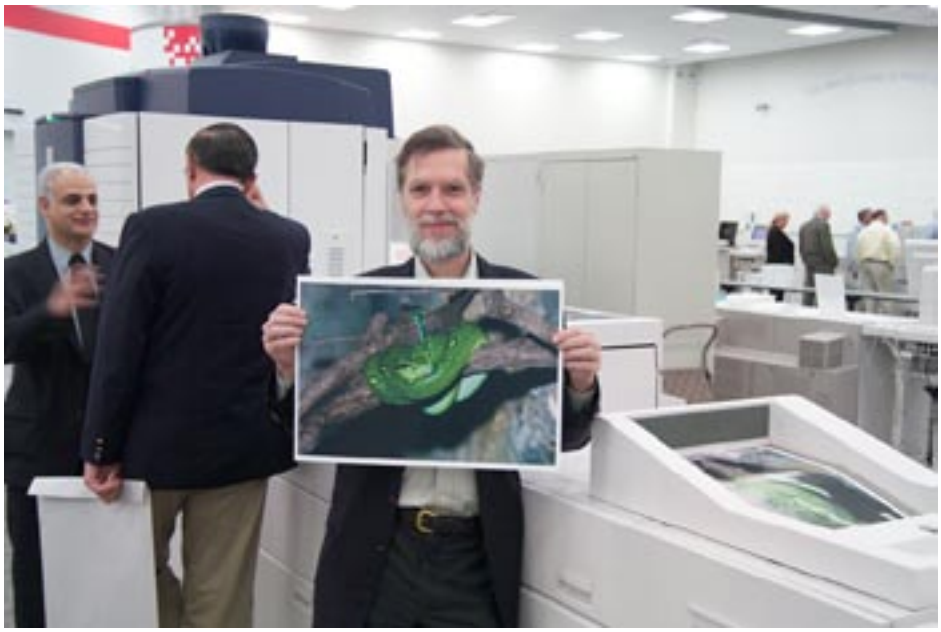
Dr Nicholas Hellmuth holds up a sample book printed by the iGen3. Nicholas is already dreaming of how his photo archive would look in short-run book format, subject by subject.

FLAAR has been looking for the appropriate technology for seven years: how should a photo archive be produced when you want hard copy in addition to electronic versions?

Then of course an entire university such as BGSU has a thousand other questions, how a variable data press can help with fund raising from alumni, selling tickets to sports events, encouraging high school students to enroll at BGSU instead of competing colleges or other universities, and so on.

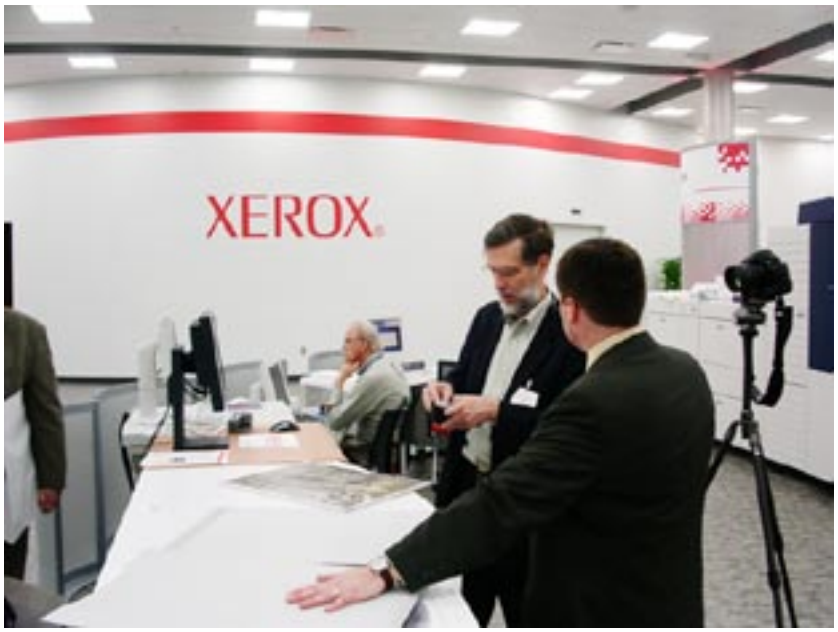


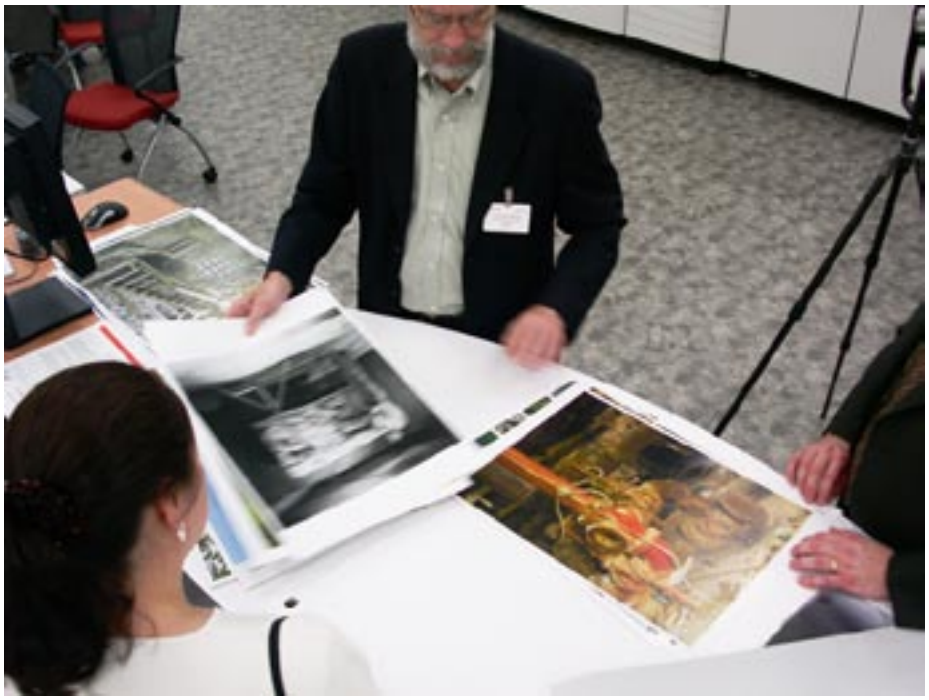
What more can we say, the technology sure was impressive. We can't say too much more since we are under Non Disclosure Agreement on several aspects.



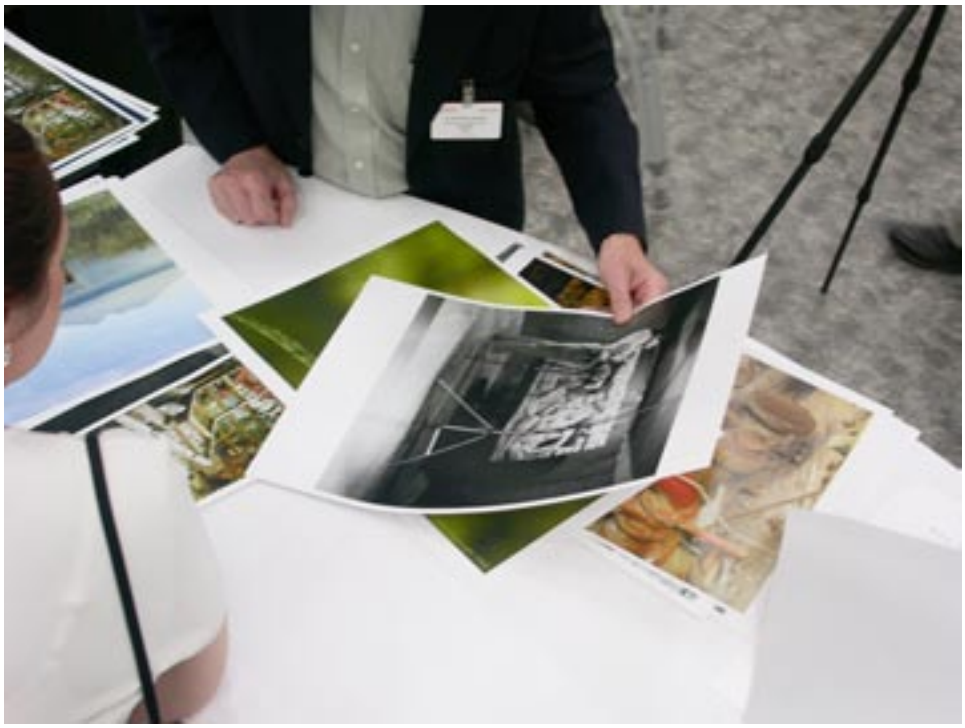
Since the ancient Aztecs, Maya, and other peoples of pre-Columbian Mesoamerica utilized serpents as models for deities and supernaturals, Nicholas has made the effort to photograph as many snakes as possible. Here is what is probably a green tree viper. Nicholas works in the zoos and goes inside the cages or works with the curator to bring the snakes out. You will not get a shot like this out in the rain forest. We know, we have lived in the jungles of Guatemala for many years.

We would like to have an entire reference archive of all the interesting animals, reptiles, fish, and other creatures that were of interest to indigenous peoples of Mexico, Belize, Guatemala, and Honduras. A printer such as the iGen3 makes this possible, and to customize such a reference book for everyone who wants one.





The print is blurred since Nicholas is so excited to see all the rest. The quality is better than he expected.

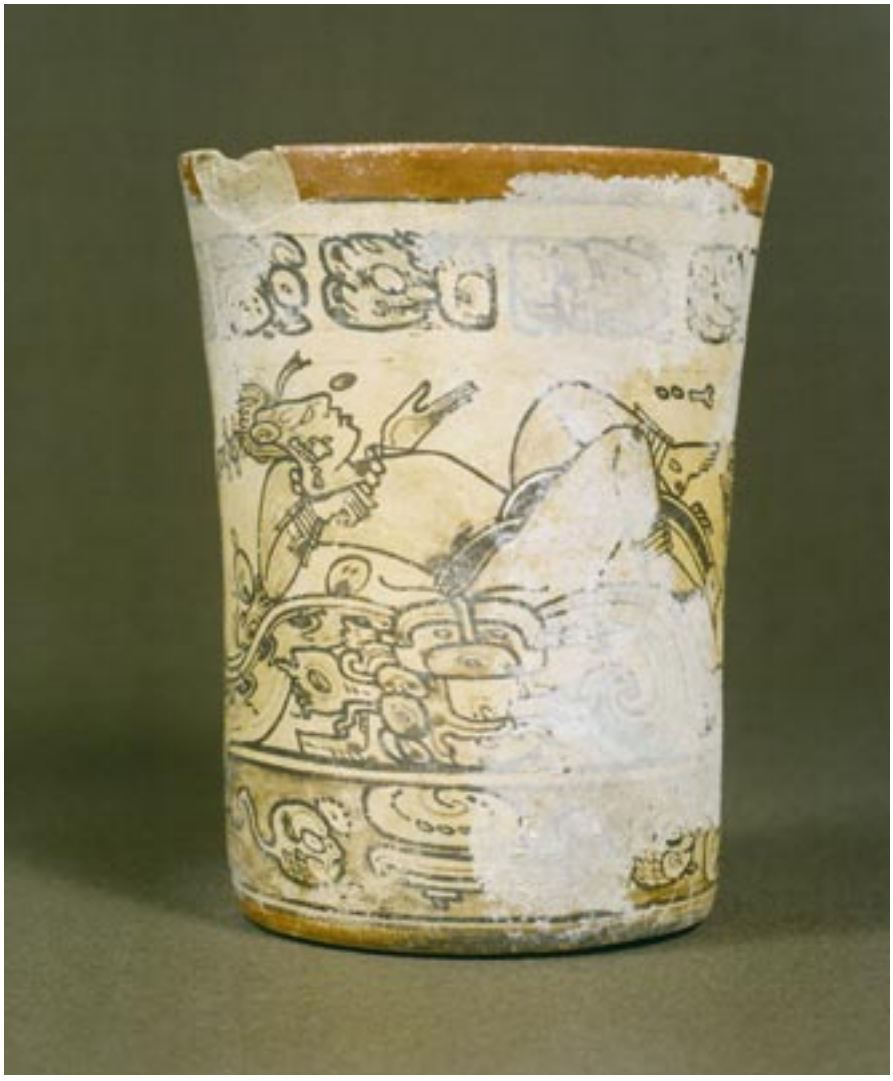


Here is a typical research problem that Dr Hellmuth faces. His speciality is iconography, the study of meaning in art. On the left is a 6th century Mayan painting of a feline: but which feline?

Is this a margay, an ocelot, or a jaguar?

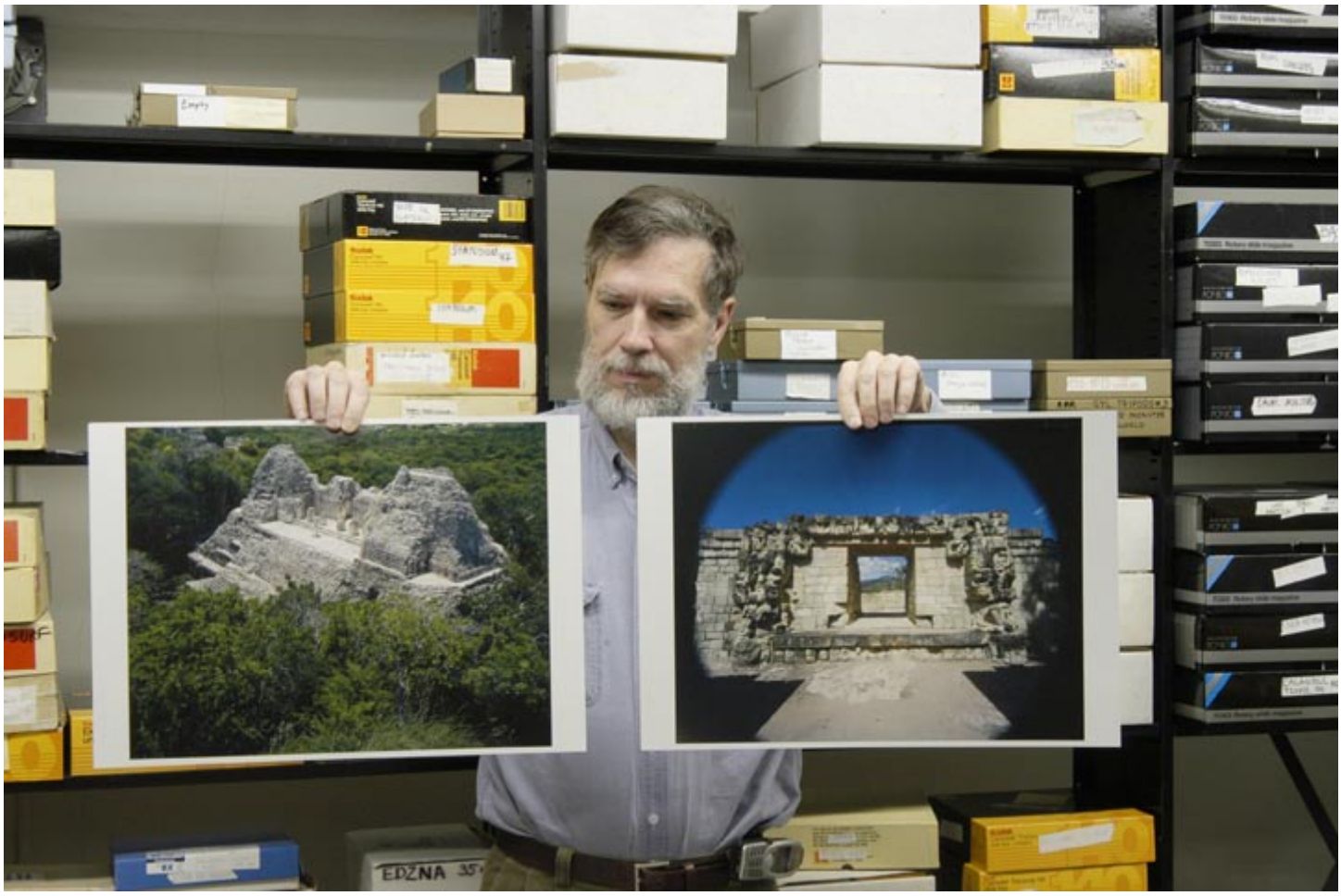
So Nicholas goes out and finds each cat, and photographs them front, back, sideways, underneath (when they cooperate) and so on.

Our long range goal is to make these photos accessible, as soon as grants or donations from corporations or private benefactors are available.



FLAAR does special photography for individual museums and projects. These photos we do not distribute since the rights are property of the museum or project. But we do have a huge research potential from the sheer quantity.

But more than the quantity is the quality. The detail captured by a 4x5 chrome or a 6x6 cm medium format Hasselblad shot is superior to the 35mm photos that are typical of most archaeological projects.

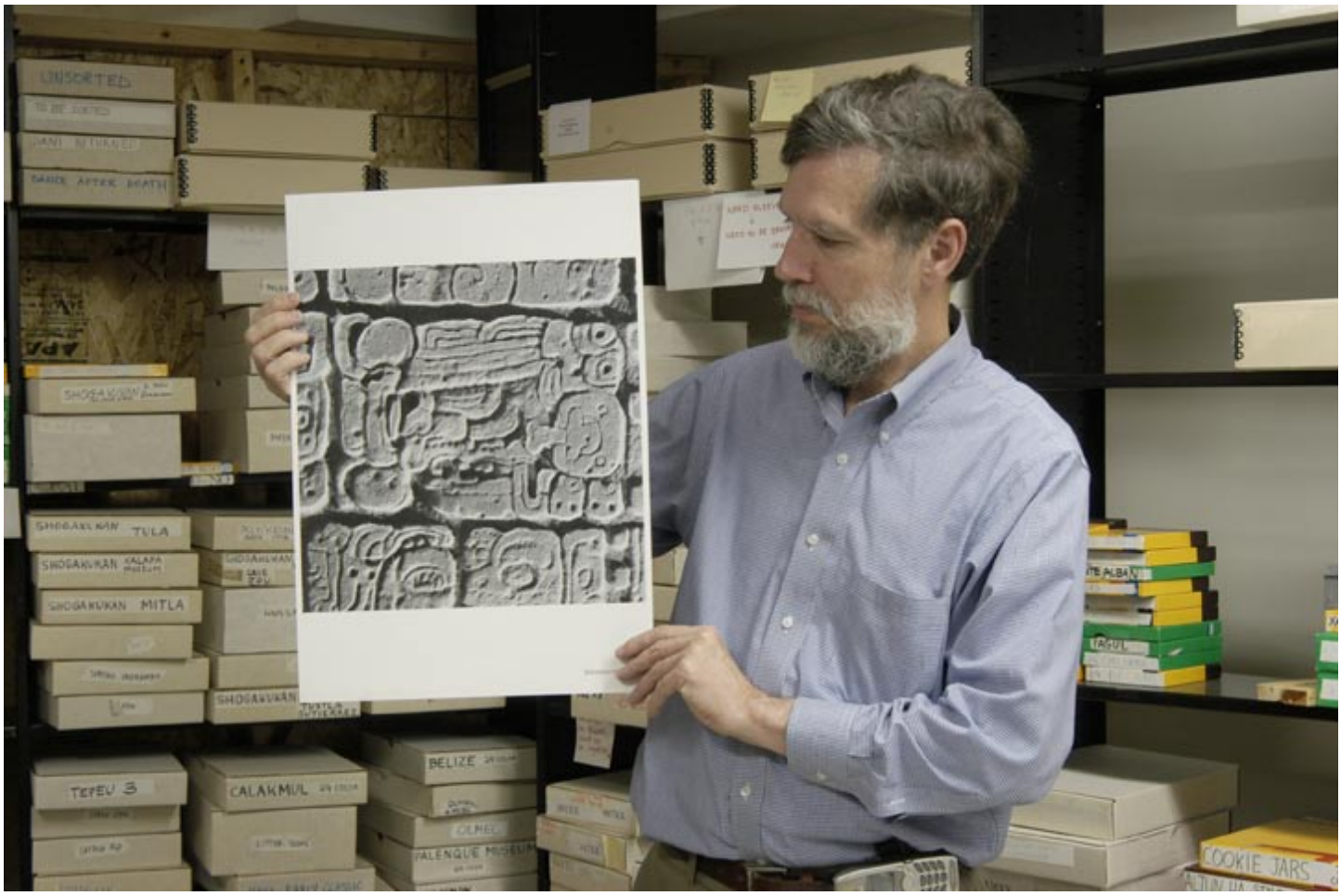


Eight years of photography throughout Campeche, Yucatan, and Quintana Roo have resulted in the largest archive of Mayan architecture next to that of the Carnegie Institution of Washington (at Harvard) and to the years of architectural photography of architect George Andrews. Nicholas studied architecture at Harvard and has always enjoyed recording pre-Columbian architecture. The archive is especially valuable since hurricanes and general decay over the decades have resulted in some of the buildings, such as Tzinkin Tzakan, are no longer standing. In some cases the FLAAR photographs are the only professional record that exists, or in other cases are the best of the few extant photographs.

The photograph on the left shows a Chenes-Rio Bec pyramid-temple complex in Campeche. The photograph on the right shows a provincial Chenes façade at Copan in Honduras. The space was so narrow that we had to utilize an ultra-wide angle Schneider lens, on a wide format camera. This special lens captures over 110-degrees of view, but vignettes as you can see with the circle. But you can simply crop this off and you get a perfect photo. Indeed the government of Honduras, with our permission, has used many of Nicholas Hellmuth's photos from the FLAAR Photo Archive to showcase their national patrimony. When we visited Honduras last year we saw prints in many travel agencies and local museums.

These are the contact sheets kindly printed for us by Xerox. Every different printing technology needs slightly different color management. The photos here are all raw scans; they have NOT yet been color managed or otherwise digitally imaged in Adobe Photoshop.

The purpose of these contact sheets are to show the diversity of subjects within the 50,000 images of the FLAAR Photo Archive



The FLAAR Photo Archive is a unique resource for epigraphers and iconographers. We have 1:1 close-up details of individual hieroglyphs of important inscriptions, such as here, Nimlipunit, Belize. We are doing our best to locate all the negatives, which were in storage during the years that we have been studying the digital imaging technology. We did not want to start scanning the archive until we were sure to have the proper scanner and software.

For example, a team of two have been working now for six months to ascertain what is the best Data Asset Management software. Please understand that software sophisticated enough to handle 50,000 images, and to allow outside users to browse the data base, has been preliminarily priced at between $27,000 minimum, probably $50,000 more realistically (not counting the time to scan all the images, and not including the cost of specialists to keyword each image). In many instances Nicholas is the only person who knows the keywords, so he definitely has his work cut out for him for the next several decades. But since it took over 30 years to do the photography, we want to be sure the scanning and cataloging is done in a manner that is appropriate. Clearly we will need major grants to get all this accomplished more quickly.

The original prints from the iGen3 look much better than these snapshots, since the light reflects off them in the archive area.

Butterflies were treated to special attention in the art of Teotihuacan. The waterlily was a sacred flower for the Classic Maya. Our long range goal is to continue photographing the plants and animals of Guatemala so that students, scholars, and everyone who is interested in ecology as well as iconography and archaeology can have these images available in the future.

More than 20,000 images in the archive are black-and-white negatives. We are pleasantly surprised that they turned out in the scans, albeit here a tad over-exposed. One thing we have learned, do not ever use film again. Do all photography digitally. If these were digital originals, every detail would be rescued, even in the overexposed portion.

Keep in mind that these images were fed into theiGen3 totally raw. None were tweaked in Adobe Photoshop. We did not profile or otherwise improve the original scans.

Reflections

At the rate that cattle farms, highways, housing developments, and agri-business are bulldozing down the tropical forests, we better get busy today to record these fragile eco-systems.

FLAAR is proud to be a leader in this photographic rescue and we thank companies who provide us access to their technology to further our educational goals.

Although the text to this particular FLAAR Report has touched mainly upon our photo archive, we have many diverse projects relative to variable data printing, and also short run digital printing. Although this technology has been around for several years now, it is only reaching maturity now. The output at DRUPA trade show 2000 was still about what you expected from an entry level copier. Today the output from the iGen3 is, for many photographs, definitely as good as quality offset and in a few instances as good as a fine art print from an inkjet giclee printer.

This quality issue is something that we noticed. You need to feed these high-end printers images of exceptional quality. Then their toner chemistry can produce awesome results. But if your original photos are merely ordinary, the printer can't turn it into Cinderella.

Now you understand why FLAAR is also devoted to research in digital photography and scanning. The better the printer is, the more it needs the highest quality input to create the best output.