

FY2008 Learning Technologies Grants Proposal

Project Information

High-Resolution Digital Image Capture For Fine Art

Project Title

Michael Marshall

Project Director

Art

Requesting Department

\$15,000.00

Amount Requested Year 1

\$0

Amount Requested Year 2

Project Director's Signature

Proposal Endorsement Signatures

Department Head

Dean

Proposal Abstract (100-word maximum)

A critical threshold has been crossed in the evolution of digital cameras. Innovative new technology in CCD sensors now allow mid-sized cameras with digital backs to capture the same amount of information as a traditional large-format negative scanned into a computer. A majority of our photography students are make their final prints digitally, although nearly all of them shoot traditional film negatives. This project creates the potential for an all-digital workflow while maintaining expectations of quality. 100% of photography undergraduate and graduate majors will use this equipment. It will serve as an invaluable tool, keeping our program current and competitive.

Section I. Project Description

Through this grant proposal, the Photography Area of the Lamar Dodd School of Art intends to introduce an all-digital workflow to the area that maintains the museum quality presentation that we teach our students to aspire to. This includes acquiring a Leaf Aptus 65S digital back to be coupled with our current high-end digital output devices, to create a high quality digital workflow.

New technology is broadening the language of art making, allowing artists to explore and express ideas in ways that were not possible just a few years ago. This is especially true in the area of photography. Technology is altering every venue of cameras from casual family snapshots to fine art in galleries and museums. This represents a wide range of users with an equally wide range of expectations. While casual users may be happy with the quality of a digital point-and-shoot, or even a camera phone, fine art photographers demand a much higher quality. Since their inception, digital cameras were unable to generate the resolution that many fine art photographers demanded in their work, to match or exceed the quality of the traditional film that they were used to.

An exciting threshold has been crossed in the new technology of digital cameras. Until recently, digital cameras could only create fine-art quality images at smaller sizes. Even high-end digital 35mm cameras can only print up to 11"x14" and still maintain the exhibition quality that our students expect of their work. Nearly all of our students are instead choosing to shoot traditional film based cameras so that they can have the option of making larger exhibition prints. To tap into new technology, they often scan their traditional film negatives into the computer to manipulate and print their images.

New technology has now developed high-end digital backs for medium format cameras that can capture over 33 mega-pixels of information in each frame. This digital back exceeds the quality in resolution and dynamic range that you can capture with a similar film camera, and rivals the quality that students were getting when using a cumbersome large format camera and scanning 4"x5" negatives into the computer. The expanded dynamic range of these new digital sensors can now capture a wider range of brightness than film, recording the darkest shadow up to the brightest highlight in each scene.

The funds from this learning technology grant will be used to purchase a Mamiya 645AFD camera with Leaf Aptus65S digital back. The new technology in this system offers the potential for students to work at the same level or higher than they are currently working, utilizing a more versatile, digital workflow. The system handles as if it were a traditional medium format

film camera, similar to those that our students currently utilize. It also adds the potential for in-process proofing and digital image manipulation with an output that equals or exceeds our current expectations with traditional materials. Coupled with the large format inkjet printers that we already use in our area, this camera will offer the last link for an entirely digital workflow that maintains high quality at large print sizes.

The art department in general and the photography area in particular is working hard to keep abreast of new technology and bring our program up to a level competitive with others across the country. Top photography programs such as Yale University, Columbia, the Chicago Art Institute and even the Savannah College of Art and Design, already have large digital facilities and integrated classes utilizing cameras such as this. We have created new classes in digital imaging in our program and we are integrating digital working processes into every class from intro to senior level. It is important that we add cameras such as the one from this proposal to stay current and competitive with other schools. It will be an important addition to our program, allowing students to use digital technology not only for output, but also in developing a whole new working method.

In the fall of 2008, the School of Art will be teaching in updated and expanded facilities in a new building. The photography area has designated a space in this new building to create a digital-workflow shooting studio. This studio will include lighting equipment, computers and printers. The digital camera from this grant is the key tool to complete this facility.

The equipment from this grant will be used by 100% of the photography majors in the art department at both the undergraduate and graduate level. The digital photography class is a required class for all of our majors where this camera would be introduced. After taking that class students would be able to use this equipment and technology through all of the upper level photography classes.

The photography area is committed to integrating new technology into the program as is evident by new additions to the faculty, curriculum and funding it has already dedicated to the development of this equipment. In addition to advancing our current students, this equipment will be an important element in drawing perspective graduate and undergraduate students from across the country, assuring the continued growth and strength of the entire department.

Section II. Budget

ITEM	<u>YEAR 1</u>			
	Quantity	Total Cost	Requested from LTG	Provided by Other Sources
Leaf Aptus 65S digital back	1	\$15746	\$15000	\$746
Mamiya 645AFD Pro Value Pack	1	\$3000	0	\$3000
SanDisk 8GB Compact Flash Card	2	\$700	0	\$700
Pelican 1500 Hard Case	1	\$100	0	\$100
Alien Bee Location Lighting Kit	1	\$2000	0	\$2000
16 station digital lab with G5 Macintosh computers, digital projector, software		\$45000	0	\$45,000
Satellite digital printing lab, 5 computer workstations, drum scanner, film scanner, 2 large format color archival inkjet printer, large format black and white archival printer, software		\$50000	0	\$50,000
TOTAL YEAR 1			\$15,000	\$101,546

Listed below is each item on the budget list with justification.

- **Leaf Aptus 65S Digital Back.** This digital back attaches to the Mamiya 645AFD medium format camera, making it a digital camera capable of capturing 28 mega-pixels of information in a single picture. This is the heart of this project, giving students the capability to capture digital images at nearly the same resolution as a large format film camera. Digital pictures at this resolution can be printed to gallery standards utilizing our area's 44"-wide, large format inkjet printer.
- **Mamiya 645AFD Pro Value Pack.** This kit includes the Mamiya 645AFD medium format camera with an 80mm lens.
- **SanDisk 8GB compact flash card.** These 2 compact flash cards will serve as the storage space for storing images when not connected directly to a computer while shooting. This camera creates large files requiring the large storage space of these flash cards to work efficiently.
- **Pelican 1500 Hard Case.** This is a solid storage case to protect the equipment in storage and transport.

• **Alien Bee Location Lighting Kit.** This lighting kit will give students the ability to adjust and control lighting situations in the new studio that will be set up to work with this camera system. They are also portable and can be taken out for fieldwork.

• **Computers, software and printers for image manipulation and output** – Our current facilities include a full digital lab with 18 G5 workstations. In addition, there is an advanced digital printing lab with 5 computers, two large format inkjet printers, and desktop printers. An additional computer work station will be set up in the digital workflow shooting studio that will create the potential to shoot in a studio setting while connected directly to a computer and printer. The equipment in these facilities is funded through various sources including area funds, departmental funds, grants and technology fees.

Project timeline

Date (mm/yy)	Objective	Person(s) Responsible
Upon receiving the grant	Order Equipment	Michael Marshall
02/08	Integrate equipment into Graduate level photography classes.	Michael Marshall
08/08	Full integration of digital equipment in the new facilities, digital photography class and all advanced photo classes.	All photo area faculty.

Section III. Learning Outcomes

This equipment will be a major addition to our area, signifying a significant change in the potential of the work being produced in our department. It will offer a whole new level of working process and language for students to explore through a new range of options for process and expression, without sacrificing quality. The digital workflow not only provides a faster working process, but also creates the potential for immediate review and adjustments in the middle of a shooting session, allowing the students to create stronger work.

The outcome of this new equipment will be evident in the work being produced. Discussion based critiques are a regular part of every studio class. The new possibilities that this equipment will introduce will quickly become a part of these discussions. In addition to the in-class evaluations, students finishing their BFA in photography have a public exhibition in the Lamar Dodd School of Art gallery space each year, and students finishing their MFA degrees have exhibitions in the Georgia Museum of Art. These formal exhibitions will be another opportunity to display and evaluate the learning outcome of this new equipment. Beyond the classroom the knowledge and working methods this equipment generates will make our students more marketable in the commercial sector and will lead to more students getting higher-level jobs.

Section IV. Support Plan

Professors, graduate students, photo interns and the School of Art technical support team will perform any required equipment support. The Associate Director of Technology for the School of Art has given his full commitment to integrating digital technology into the photography area and has assured us that their resources will be available to sustain this equipment.