PANORAMA



The Magazine Of Panoramic Imaging

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Panorama is a publication of the International Association of Panoramic Photographers. Our offices are located at the various addresses listed below:

IAPP

PO Box 2816 Boca Raton, FL 33427-2816 561-393-7101/561-361-0494 fax

http://www.panphoto.com

President:

Fred Yake

8855 Redwood Street Las Vegas, NV 89139 702-361-5885/702-361-5885 (fax) VegasPan@aol.com

President Elect:

Dennis Tremblev

600 Pierre-Caisse St. Jean-SR-Richelieu Quebec, Canada J3A 1M1 514-359-9188/514-359-9372 (fax) panoram@cam.org

Exec. Secretary/Treasurer:

Addie Lorber

1385-87 Palmetto Park Rd West Boca Raton, FL 33486 561-361-0031/561-361-0494 (fax) CustomLab@aol.com

Panorama Publisher:

Warren Wight

http://www.wordsandpictures.com warren@wordsandpictures.com

Board Members:

Liz Hymans, Belvedere, CA 415-435-5842

Will Landon, Bellevue, WA 206-746-3143/206-746-6985 (fax)

Bob McIntyre, Colorado Springs, CO

709-577-5779 (fax) **Doug Segal**, Chicago, IL

312-236-8545/312-704-4077 (fax)

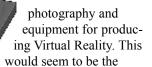
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Presidents Message

By Fred Yake

Thope everyone had a wonderful Holiday season and I send you Best Wishes for 1998. The IAPP web site is looking great and is being kept very active by our Webmaster, Warren Wight. Many folks out there are now visiting our site and I am receiving numerous inquires each month of interest in IAPP, panoramic photography or related equipment questions. I of course can't answer all of the questions but I usually know which member might know the answers. In any case it is obvious that many people are interested in panoramic



immediate demand for our type of photography and I'm sure we will follow this right into Digital panoramic photography. Try to keep up!

Our *Panorama* magazine is continuing to grow. *Panorama* is our connection to you. It is our intent to keep you informed, educate and entertain you. We have added new columns and new advertisers have come on board. We ask that you

continue to send articles and images for publication, this makes it possible to produce a better publication and will encourage continued participation by our advertising partners.

I know many members will feel the loss of one of IAPP's Founding Members, Jim Lapari. I knew Jim from the beginning of IAPP, he had such a friendly nature and was always ready to share his knowledge of panoramic cameras and would build cameras and special accessories for other members. Jim will be missed by many.

Secretary Says Happy New Year To All! By Addie Lorber

Tow that the holidays are behind us it's time to make plans to attend the International Convention in Moab. In this issue you will find the registration form for not only the meetings, but for different excursions to various destinations in the area. There will be a lot of time for picture taking built into the program and you will find the format for this conference different from others you may have attended. Fred along with committee chairpersons has been working diligently to ensure this will be a worthwhile experience for all.

On a sadder note, Jim Lipari, a long time member of the IAPP passed away in December. Jim not only built cameras, but also helped maintain Cirkut cameras for all needing his expertise in servicing them. Jim will be missed by all whose life he touched.

The renewal drive is going smoothly and I thank those of you who have sent in your forms and payment. For those who have not, do not delay. Not only will you miss the deadline for the new membership directory; this will be your last issue of *Panorama*.

Speaking of the newsletter, I wish to personally thank Warren for the outstanding job he is doing. The whole outlook of the magazine has changed and judging from the comments by other members, the extra effort is appreciated. One of Fred's goals during his term as president has been to improve the quality of *Panorama* and he works closely with Warren to make sure the standards he has set are maintained. Thanks, Fred.

Have You Paid Your Dues?

We would like for everyone to be listed in the 1998 IAPP Membership Guide.

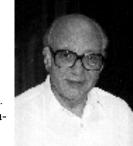
To be included in the directory your annual IAPP membership dues must be received by February 29, 1998. No exceptions, as we will go to press on March 1.



IAPP Loses Charter Member

By Will Landon

im Lipari, a long time member and contributor to IAPP died on December 20th, at the age of 80, of a heart attack. Panoramic photography and myself personally have



benefited greatly from Jim's creativity and craftsmanship. Just yesterday I worked with two unique cameras that Jim made to my requirements. One was a 6 x 36 camera with 150mm to 1200mm capabilities with view camera movements. I do a lot of work with that camera. The other was a super wide angle Cirkut with full 110° vertical coverage, which can handle extreme coverage problems on interiors and exteriors. I have several other cameras that Jim made that have special capabilities, and they all have innovative problem solving designs.

What I appreciated most about Jim was his ability to understand a verbal description and crude drawings and convert those inputs into a product that would do the job. A 70mm film handling system that mounts on a lantern slide projector to perform continuous panoramic projection was one of those creations. I am using the Roundshot Super 70 camera to make telephoto panoramics to project on this system splicing them together to make a show, with music and narration. One such show regarding Arches and Canyonlands N.P.'s will open the 1998 convention at Moab. A second show on Washington state is in progress right now. I talked to Jim about building a wobble table to hold

contact printing frames when making emulsion to emulsion dupes or masks to reduce contrast on color negative enlargements, and within two weeks it was there, and worked perfectly. And of course each year I use the wedge and platform that Jim built for #10 Cirkut cameras. Simple,



but effective means to take remarkable Cirkut photographs of large groups, whether indoors or out. CPL recently enlarged one of those group shots to an eight foot mural, and 350 faces were clearly

visible filling nearly the entire mural thanks to the wedge.

At the Cherokee convention Arvid Olson gave a speech about Jim, which was printed in the January 1997 issue of our magazine. Go back and read that speech to get another take on this remarkable man who contributed so much to the progress of panoramic photography, and more than that, to generate enthusiasm we all need to pursue, and to accomplish in this media.

Panoramic conversations with Jim Lipari were always enriching experiences as ideas and concepts would flow rapidly back and forth. He knew and understood so much, and his enthusiasm was contagious. We will really miss you Jim.

Above: Jim at the 1995 Flagstaff convention, sets up a "Lipariwide" for the group shot.

Web Report IAPP At panphoto.com

By Warren Wight

The Official IAPP Website continues to grow. Soon, there will be a welcome message in Spanish and French as well as English. A QTVR image will be added to the Members Gallery, along with links to the popular Immersive Imaging viewing software and plug-ins.

The **IAPP Boutique** is now online. You can view all the latest IAPP logo items and panoramic books available in the IAPP Boutique. An order form is available to print out, fill in and send to IAPP for official IAPP merchandise.

Moab '98 Information - There is a section for all the latest information on our upcoming International Convention, May 5-9, 1998, in Moab, Utah. Keep updated between issues of *Panorama*.

The Panoramic Imaging E-mail Discussion Group, created and maintained by IAPP member, Stephen Morton,

Web Report continues on page 8

From The Board Convention Committee

The Convention Committee for the 1998 International Convention at Moab, Utah is as follows:

- · Chairman Fred Yake
- Co-chairman Denis Tremblay
- Convention Coordinator and Print Contest Chairman Bob McIntyre
- Registration Addie Lorber
- Field trip Coordinator/Exhibit tables Liz Hymans

Additional committees:

- Field trip advisor Will Landon
- Sponsors Doug Segal
- Boutique Ron Tuttle
- Photo Display Alan Bank
- Photographer Warren Wight
- Registration assistants Jean Yake, Michlin Tremblay
- Awards Tom Bleich, Bob Lang, Ron Kline
- Nominating Chairman Dave Orbock
- By-Laws Addie Lorber, Jean Yake
- Camera Drawing Fred Yake, Denis Tremblay, Dick Fowler
- Qualified Panoramic Photographer Jeff Weissenburger

Please contact these members should you wish to contribute or have any questions or suggestions.



Moab 1998 Update

Meet Some of the Panoramic Presenters

Composition & Comparison of Panoramic Cameras & Lenses



Liz Hymans is one of the leading professional panoramic photographers in the United States, and specializes in landscape and scenic photography. She also shoots wildlife, cityscapes, and adventure travel, and is an expert rephotographer (locating and exactly

matching historic photographs). Her work has been published extensively, and she is represented by three stock-photo agencies: Tony Stone Worldwide, Corbis, and Panoramic Images. The National Park Service uses a lot of her panoramas on Wayside Exhibits and museum displays. She is currently at work on a picture book of Grand Staircase - Escalante National Monument.

Slides will show side by side comparisons of photos taken with various panoramic cameras so you can clearly see the differences between shooting with a Noblex, V-Pan, Fuji 617, Globuscopes, and others. Liz will discuss the different aspects of straight back, swing lens and rotational cameras and relate those factors to the art of composing with panoramic cameras. She will also share effective concepts for panoramic composition.

Panoramic Slideshow on Arches and Canyonlands



Will Landon has been a member of IAPP practically from the beginning. His first convention was Yellowstone and he began writing articles after that and did his "Glacier Panorama" presentation at the Banff convention. He was using 4x5 equipment in the 60's and 70's in the mountains, but felt frustrated that the lenses weren't wide enough. Then he remembered his class picture and tracked down a #8

cirkut, followed by a #10. He found in the early 80's and still feels it's true today, that the Hulcherama did the best job for him on most mountain situations as the #10 cirkut is so heavy and bulky. Because no one camera fits all panoramic situations, Will found it desirable to either make or buy the cameras that best fit certain types of situations. "I feel fortunate that I own and use a Roundshot Super Camera. It is my rotational camera of choice if it doesn't have to be packed too far. I am currently using this camera extensively to produce continuous projected panning slides for a unique slide show effect". His slide show on Arches and Canyonlands, NP will be the opening event at the 1998 IAPP convention at Moab, UT, using this methodology.

Single Source QT-VR and Digital Printing



Joseph DeRenzo and John Gately, members of IAPP, will be making a presentation on Single Source QT-VR and Digital Printing applications for panoramic photography. John Gateley has been involved in panoramic imaging for 20 years and has documented much of the western U.S. Joseph DeRenzo became involved with panoramics 10 years ago starting with a Widelux and has carried his experience over to the digital world. QT-VR images produced with Roundshot and Noblex cameras along with the Apple QuickTime Authoring Studio, PhotoVista and Nodester software will be shown and discussed. Images printed digitally from the LightJet 5000, Fuji Pictrogrophy and the Epson Photo Stylus 3000 will be on display. New technology has made it possible for panoramic photographers to expand their horizons onto the Internet and the opportunities for this technology are limitless. Digital printing technologies make it possible to have total control over all aspects of the imaging process and allow the artist a direct link between one's imagination and the final print. This presentation at the Moab '98 emphasizes both artistic and other applications of the new imaging technologies.



An Introduction to Panospheric(tm) Imaging



also be demonstrated ____

Stephen Bogner, P. Eng., is a key innovator in the field of video immersion. In 1993, as a research engineer employed by the Canadian Department of National Defense, he was the first to propose that the synthesis of convex reflective optics and digital image remapping could result in a unique imaging capability that would provide perspective corrected views of the entire spherical field-of-regard. Although the technology was created to achieve video immersion, it

MOAB '98

has proven to be suited to panoramic and immersive still photography. In February 1996 he was nominated for Canada's prestigious \$100,000 Manning Award for Technical Excellence, in recognition of his innovative work in this area. Stephen is the Scientific Authority for the Panospheric Imaging Lab at Defense Research Establishment Suffield, and is the Canadian Department of National Defense Subject Matter Expert on Immersive Imaging.

He will demonstrate technologies and techniques for the creation of fully spherical immersive images. Spherical still images will be created from Fisheye lenses, as well as Panospheric(tm) optics.

Immersive video imagery will

PANORAMIC PHOTOGRAPHE

How To Get To Moab

Salt Lake City or Denver will probably be the airport you will fly into. Alpine Air, a commuter airline, has joint fares with Delta, Continental and American Airlines from major cities into Moab. Extra charge for luggage over 40 lbs. The closest major airport is Grand Junction, Colorado, 125 miles away.

To drive from Salt Lake to Moab allow about 3 hours, from Denver allow around 5 hours. You can catch Bighorn Express, a shuttle, from the Salt Lake airport to Moab, round trip around \$85, call 1-888-655-7433 (toll free) for reservations.

There is only one shuttle a day that departs SLC at 1:45 pm and arrives in Moab at 6:30 pm. Returns are at 7:35 am arriving SLC at noon. Seniors \$3 off, groups of 4 or more 10% off.

If you get into Salt Lake and have a little time to spare, IAPP member Everen Brown will be hosting an open house at his office, Everen T. Brown Advertising, in downtown Salt Lake.

New Awards For Panoramic Photo Contest

By Bob McIntyre - Print Chairman

Great news for the print competition in Moab! There will be two new awards: the Kodak award and the Fujifilm Masterpiece award.

To win the Kodak award Kodak film and paper must be used. To win the Fujifilm Masterpiece award you can use any film or paper. However if you use Fujifilm your winning picture will be published in a book; otherwise only your name will be published. The category for both awards is "Open". This is the first time the big film companies have given awards to IAPP, as far as I know. The awards will be given out at the final dinner. Mr. Peterson will be giving the Kodak award and Mr. McCarthy the Masterpiece award. Also Mr. McCarthy is an added judge at the cometition. The others are W.Ward Clark, Peter Lober, Dick Fowler, Chuck Peterson, and Bill McBride. Panorama Magazine wants a print of all award winners. Please keep this in mind. Get busy and dig out those prints and get ready to win a really big award. Good luck!

Open House Before Moab

IAPP member Everen T. Brown will host an open house for members travelling through Salt Lake City. Salt Lake has the largest airport nearest Moab and is a hub for both Delta and Southwest Airlines.

Salt Lake City will host the Olympic Winter Games in 2002 and provides a variety of sightseeing options. The State Capitol, LDS Temple and Tabernacle, and pioneer homes are located downtown. Park City, a quaint mining town turned world class ski resort is only forty minutes away. Snowbird and Alta might still be offering skiing in May!

The Open House will take place Monday, May 4th and Tuesday, May 5th, from 9 am to 5 pm each day. Stop by and pick up information on the city, have your sightseeing questions answered and meet up with other IAPP members. It will give you a chance to rest and enjoy a soft drink. This is an informal event...Stop by and say HI! Location: Everen T. Brown Specialty Advertising Showroom in downtown Salt Lake City at 376 South West Temple. Parking is available in the rear.

What's In Moab

any of you are familiar with the national parks in the Canyonlands area, but for those who haven't visited this part of the country you will be in for an eyeful and camera full of natural beauty when you attend our International Convention May 5-9, 1998.

Our headquarters is in Moab, a small town on the Colorado River. Moab is known as the Heart of the Canyonlands and sits at the base of the majestic snowcapped LaSal Mountains. Several National Parks and scenic driving tours are just minutes from Moab.

Famous Arches National Park is just a 20-minute drive from our hotel. Over 100 million years of erosion has created this land that boasts more than 2000 arches ranging in size from 3 feet to the longest Landscape Arch which measures 306 feet from base to base. Other well-known spots in Arches are Windows, Park Ave and Double Arch.

Delicate Arch probably the best known of all the arches is 35 feet high and stands on a lofty perch with panoramic views of the Colorado River, Canyon country and the LaSal Mountains.

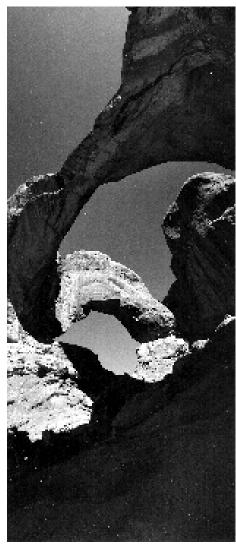
Canyon Lands National Park, 36 miles from Moab, has several spectacular areas. Views from Island in the Sky stretch across canyon after canyon to the horizon 100 miles in the distance and include the Maze District with weirdly shaped towers, walls and sandstone buttes, the Needles District with its rock pinnacles banded in red and white, and the Rivers District where the Green and Colorado River meander through sheer-walled canyons. The two rivers combined create a fourteen mile rush of Cataract Canyon, one of the country's most treacherous white water stretches.

Canyonlands with its beautifully

colored rock, arches, Indian ruins and petroglyphs are a panoramic photographer's dream.

Dead Horse Point State Park, about 35 minutes from Moab, offers a spectacular view perfect for panoramas of the LaSal Mountains, Canyonlands and the Colo-

Moab continues on page 15



Double Arch photographed by Fred Yake.

The Panoramic Disapperance

By Richard Rader

he panoramic image has always been for me, the most interesting way to view a scene. With our peripheral vision, we can see about 160° all around us, top to bottom, side to side, diagonal to diagonal.

The extreme wide view has fascinated image makers since photography began,

however, it seems 99% of all photographic images are shot rectangle at approximately 3x4.

Ever since my first

days in photography over 35 years ago, I have taken wide photographs. In the early days the camera I used was a Zeiss Ikon, Ikoflex twin lens reflex that used 120 film. This is not a panoramic camera at all, as a matter of fact it produces square negatives and has a normal lens.

In order to record a scene that would show all that my peripheral vision could see, I would take from 4 to 8 exposures panning the camera and overlapping each image just a little. A special plate was used between the camera and tripod that put the center of the lens directly over the tripod access. Then each negative was printed to its full image area. Using an Exacto knife, the overlapping prints were cut around the subject detail.

This technique made it much harder to find the splices then just cutting a straight line and butting the prints together. The image above is made up of 6 exposures and is almost 180°. Notice there is practically no distortion.

With the cameras that are available today, panoramic photography is much easier. However, some cameras will produce distortion and many viewers find

that this is unacceptable. In my quest to find a camera to record the wide view for me, I have had a lot of fun and made a couple of discoveries that were surprising.

After attending my first IAPP convention last year, I purchased the Noblex PRO 6/150 F panoramic camera. This camera has the ability to focus, adjust



shutter speed and F-stops.

Its slowest shutter speed is 1/15th of a second, but you can take as many exposures as you want without advancing the film, so, realistically you could take exposures lasting several seconds if you wanted to. Not only does the multiple exposure technique work, but it works much better then I could have imagined.

Question, how many 1/15th of a second exposures does it take to give you a one-second exposure. It takes 15, 1/15th of a second exposures to make one second. Yes it is a simple question, and I know that *you* got it right, but now call three photographers and see if they get it right.

While photographing in the Forum area at Ceasers Palace in Las Vegas last spring, I needed a 2-second exposure at f22, using 1000 speed film, for a shot by the fountain and restaurant. So I needed 30, 1/15th of a second rotations to get the correct exposure on my film. This takes almost 2 & 1/2 minutes to achieve. Now for the good part. What happens when you take 30 exposures of a scene that has people in it? And what if those people are moving, walking around? They disappear, that's

what. They just don't show up since they were only recorded on one or two of the 30 exposures. (See top photo below).

The best test of this technique was yet to come. We were changing airplanes at O'Hare airport in Chicago. Between the B and C concourses you need to go underground and walk about two blocks. At each end is a long escalator. This would be a great place to take a pan.

Since I had checked my tripod, I used a trash bin that was at one end of the tunnel to hold the camera. I sat the camera on it and used a newspaper to level it up.

With a cable release I started taking the 30 exposures needed to make this

image at f22. I stopped several times to allow large groups of people that had stopped in front of me to pass by. During the time needed to complete the exposures, I estimated almost 1000 people passed through the shot. Photo below bottom shows the result. Not one blur.

If you didn't know better you would have thought this was taken late at night and after closing off the area. Also the photo is tack sharp. There are many reasons that I am enjoying the world of panoramic photography. I thought this might be something you too would find exciting. Richard Rader, 1039 North Main Fremont, Nebraska 68025. 402-721-7975 or fax 402-727-7141.





Member Profile - Dave Orbock

This is the first in a series to highlight various members of IAPP.

ave is a charter member of IAPP and is a professional fine arts photographer whose concentration is medium and large format panoramas of cityscapes and landscapes. Because of the uniqueness of this art form and his own demand for quality, he has special processing and enlarging equipment to print the long negatives and transparencies produced by his cameras. Dave works with a small staff of dedicated professionals at Full Circle, his studio-lab in mid-town Baltimore.

Dave's interest in photography began in the mid-fifties while serving his required two years in the military. Starting with a 35mm Brownie, taking black and whites, Dave then went on to purchase a Pentax and tried his hand at color transparencies.

With the completion of a master's degree in physics from Drexel in the mid-sixties, Dave found free time to enroll in some black and white courses while begining his career as a scientist

at Goddard Space Flight Center, and became a member of the Goddard Camera Club.

Even with long demanding hours at NASA during the seventies with the space program at its zenith, Dave still managed to turn to color photography and set up a darkroom. Printing was exacting and left little time to photograph.

Into the eighties Dave became an instructor at workshops sponsored by the Goddard Camera club on landscapes, cityscapes, portrait photography and figure study.

On Dave's many trips to the western U.S. he often lamented that there was a picture with every turn of the head, but alas no camera with which to capture the entire landscape.

Dave located and purchased a Cirkut camera only to learn that it was too impractical for the adventurous traveler and wife Barb, who accompanies him on most of his expeditions, couldn't be persuaded to carry it either.

His next purchase was a Hulcherama #34 and shortly after that IAPP was formed and he and his son, Jeff joined.

Dave has earned public recognition as a panoramic photographer, having been awarded many prizes, exhibiting his work throughout the world and even as a guest lecturer on photography in the People's Republic of China.

Currently he is represented by museums, galleries and art consultants throughout the US. Dave does some

commercial work but remains primarily a fine arts photographer and believes strongly in promoting photography as an art.

Dave, an active member of IAPP since joining, says he has gained valuable information and friendships from his membership.

Dave is one of many experienced members we're fortunate to have in our mist.

Infrared Pans

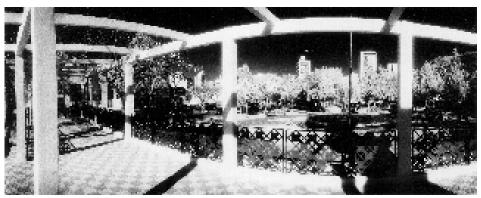
These panoramas were photographed by Brazilian IAPP member Seigid Mendonca, Jr. using his Widelux F7 with Kodak I.R. film and a 087 filter.



Paranagua



Parque Barigui



Praca Espanha

IAPP Drawing Just \$50 Could Get You A Great Panoramic Camera

Prizes will include:



For only \$50 you can buy a drawing ticket for a chance to win a Roundshot 35-35s or a Noblex 150 while helping IAPP increase members services and produce color pages in our magazine, Panorama. Only 200 tickets will be available and each ticket will be \$50. You do not need to be present to participate. Remember only 200 tickets will be available so if you are interested you should get your ticket ASAP. Mail your check or credit card information to IAPP at our post office address. Your ticket stub will be mailed to you and winners notified after the drawing.

■ NOBLEX 150

Super quality performance from a drum mounted swing lens. This medium format panoramic camera is very user friendly. Multiple exposure capability

Sponsored by: RTS Noblex and IAPP - a \$2,900 value

ROUNDSHOT 35-35S ▶

Unmatched quality in a 35mm 360° panoramic camera Great for traveling and spontaneous shooting Slow speed for long exposures

Sponsored by: Seitz Phototechnic AG, Custom Panoramic Lab and IAPP - a \$2.600 value



Sponsored by Fuji - A brick of Fuji's newest Arista film - a \$70 value.

Sponsored by Liz Hymans - Spectacular America - A beautiful panoramic coffee table book - a \$75 value.

Sponsored by Custom Panoramic Lab - Custom color printing - Professional quality printing - a \$100 value.

Sponsored by Pro Photo Connection - Panorama California Coffee Table Books - 4 copies of

Panoramic Photographs of California - a \$20 value each.

Sponsored by Wood Box Frame Co. - *Box Framing* - Beautiful all wood construction, custom made contemporary style - a \$200 value.

Sponsored by Globuscope - *Camera Base Levels* - Two Globuscope heavy duty camera base levels for hand held or tripod mount - a \$50 value each.

The drawing will be held during the International Convention in May '98.

Web Report from page 3

is an open forum discussing all aspects of panoramic imaging. You can now subscribe to this Discussion Group on the IAPP Website.

The IAPP Website is continuing to increase in popularity. We are now averaging over 100 hits or visits to the site each day! The web is a great way to spread the word about IAPP.

When you visit the IAPP website at http://panphoto.com be sure to click the sponsors icons to visit their sites. It is because of their support that the IAPP Website is possible.

If you are interested in becoming a sponsor of the Official IAPP Website, contact: IAPP - Addie Lorber, PO Box 2816, Boca Raton, Florida 33427-2816. Call 561-393-7101, fax 561-361-0494 or e-mail: CustomLab@aol.com.

Deadline for the next issue of *Panorama* is: March 1, 1998

All submissions, articles, ads, etc. must be sent to:
IAPP
PO Box 2816
Boca Raton, FL 33427-2816
561-393-7101
561-361-0494 (fax)

A Revolution in Photography - Immersive Imaging

By Chris Brosinsky

ook around, look way around. That's the whole point of a panoramic photograph, to portray the scene as completely as possible. Now we can look around, way around at panoramic images with the assistance of a personal computer. We are in the midst of a revolution; literally, in wide field of view photography called Immersive Imaging. Previous authors have described a few of the products available for creating digital panoramic images. We would like to go a step further and discuss the whole technology of Immersive Imaging, which includes panoramic and panospheric images. This is the first installment of a multi-part series discussing the technology.

The technology or art of Immersive

Imagery is made possible due to the availability of powerful image manipulation software and inexpensive and extremely powerful computers. Immersive imaging is the photographic process performed with the aim of capturing a largely spherical field of view image. In other words, photographically capturing the complete scene in which we stand. A panoramic image is an example whose field of view is up to 360° in pan and about 90° in the vertical plane. An image that has a 180° field of view in the vertical plane is a special panoramic image called a panospheric Immersive Image in reference to its fully spherical field of view having no definable seams or partitions. There are three discreet topics to discuss in this technology, those being

Immersive Imagery Viewing, Image Capture and Image Building.

IMMERSIVE IMAGE VIEWING

The imagery created is computer based, and by default digital, to be used on CD-ROM products and extensively within the Internet. The demand for this type of imagery is growing steadily as awareness of its existence is fast becoming commonplace. These images are being used to advertise, educate and entertain its users. Within the images, "hot-spots" or, links can be created to allow you mouse click access to additional images or information. For example in an Immersive Image on a museum's web site, a hotspot could be created on a painting on the wall to link to a close up of the picture along with

text describing the painting and its history. Panning the image we find other hotspots etc. The Immersive Images are used effectively as the overview or guide for the rest of the information on the web site. In order to enjoy Immersive Images, you must first have the necessary viewing software or plug-ins for your Internet browser such as Internet Explorer or Netscape Navigator. The good news is that you do not require extensive computer knowledge nor own the latest and greatest computer to view the images. Certainly, as in all computer-related endeavors, it never hurts to have plenty of memory and processing horsepower. But in this case all that is required is a

Immersive continues on page 11

NEW! Hulcherama Model 120-S

NEW FRONT SHIFT

The new Hulcherama 120-S has a total shift up and down of 28mm or 1.125" (1 1/8"). The shift is operated by a rack and pinion positioning system for fine adjustment. This front shift will be available with Mamyia, Hassleblad, and Pentax lenses from 35mm to 150mm.

THROUGH THE LENS VIEWING

The Model 120-S is equipped with a viewfinder which enables the operator to set the lens shift to the desired position and focus. This viewer is equipped with a slide cover to ensure a light seal when shooting. Also included is a hand held sun shade with a magnifier which can be adjusted to suit operator's eye.

NEW SHUTTER ADJUSTMENT SYSTEM

The Model 120-S also has the improved slit opening which is adjusted from the top now instead of from the front. 6 rotational rates, 4 slit widths. Shutter speeds from 1 sec. to 1/500 sec.

HULCHERAMA 120-S.....\$6,995.00

We can upgrade your Hulcherama with these options. Contact the Charles Hulcher Co. for price quotes.

Check us out on the internet: *hulchercamera.com*

CHARLES A. HULCHER CO., INC.

909 'G' Street, Hampton, VA 23661 757-245-6190 FAX 757-245-2882

The IAPP Boutique

IAPP Moab 1998 Commerative T-Shirt→



↑Audio tapes - Set of six, 90 minute audio casettes, of presentations at the 1996 IAPP Convention - \$18.00



←Caps adjustable, white w/red logo

Using the View Camera

Panorama California

The View Camera - New Ed



convention.

shirts must be preordered

IAPP members take 10% off listed price for books.

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IAPP-00000-1

if not picked up at the

←Panoramic Photography The book on panoramic photography by IAPP member Joseph Meehan - Only \$24.75 0-8174-5347-4



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Immersive from page 9

minimum of a 486 with 8 Mbytes of RAM, an SVGA video (which is likely standard issue with a 486 or better) and a modem to connect to your Internet Service Provider. Remember download times for the images are a function of the speed of file transfer between your provider and your modem. It is important when making the decision to incorporate

Immersive Imagery in your product that you are aware of the full spectrum of products available and to assess their salient features. For convenience, our website at http://www.piercorp.com has all of the viewing software required and example imagery to allow you to examine the difference in the various technologies of immersive imagery. The viewing

software and images are a one time (free) download which will allow you to examine our site as well as any other site that make use of Immersive Imagery. Check our web site for the viewing software for the many products available, including Surround Video by Black Diamond Consulting, QuickTime VR by Apple Computer, Online Interactive Virtual Reality (QTVR), Jutvision by Visual Dynamics and IBM's Panoramix.

These software offerings are indifferent as to how the imagery was captured but assume that if you have such you would like to view it in Immersive format

IMMERSIVE IMAGE CAPTURE

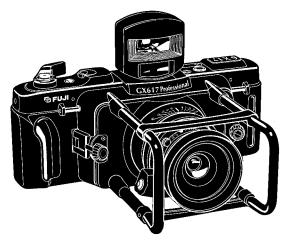
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Immersive continues on page 16

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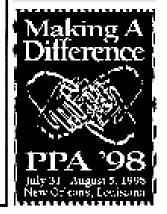
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Circular Projection And Multi-Sources Sound

A New 360" Presentation System

By Gilles Vanderstichele

t was last August when I first talked to Johnny Kurtz on his mobile phone from Corsica. He convinced me to set up the equipment we have designed and built, (Christian Coudert and I) for Nomades Audiovisuel in Paris.

It took us about 20 hours of hard work to bring the bits and pieces from the store, to assemble them, to line up the 28 slide projectors and to balance the 8 sources of the sound tracks into the 8 loudspeakers. By Thursday morning everything was ready.

The set is designed to be assembled in any hotel ballroom (9 x 9 meters), museum or exhibition hall, providing that the ground is level, and that the roof (or ceiling) is watertight. This audiovisual architecture is to be considered as a shell: it has, at first, been studied for 360° pictures (projected with standard Kodak projectors), but can also be used for any kind of photo, laser, cinema, video or data projections, and all these images can be mixed and used in the same show. All that are needed are the proper projection devices to make a full size

multimedia presentation.

The power of this system comes from the very good quality of big images (nearly 60 square meters), added to the surrounding sound. These two media lead each member of the audience to the heart of the show. The dynamic of animations, the accuracy of special effects, and the precision of the sounds bring out the finest details and incite the spectator to swing round to follow the message and to stick to the action.

The 8 minute demo program started several times every hour and most of the attendees at the Paris Conference saw it at least twice!

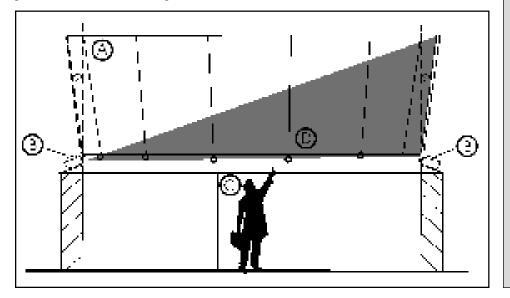
Late afternoon Sunday, the two of us took it all down in less than 7 hours. We

enjoyed very much being part of this long, busy and enriching event and we would be happy to take part in other panoramic activities or to work with you an specific programs for your clients.

TECHNICAL DATA

- A Screen: close to 60 square meters.
- B Projectors: 7 slide projectors minimum, 56 maximum, Laser, Cinema, Video and/or Data projectors.
- **C** Spectators: up to 75 per projection session.
- **D** Inside diameter of the screen: 7.6 meters.
- X correction angle of parallax: Outside diameter: 8.9 meters Minimum height: 4.8 meters Minimum electrical power: 15 KW/220

Must be installed on a clean level floor, under a watertight roof.





Product Update

The Charles A. Hulcher Co., Inc. is introducing a new Hulcherama Panoramic Camera - Model 120-S. We have taken a great product and made it even better. Our company has been building quality panoramic cameras at our lab in Hampton Virginia since 1970. We feel that this new panoramic camera is the most versatile camera on the market today.

This panoramic camera has the capabilities of through the lens viewing, a shift front that elevates the lens up and down and can be used with lenses from 35mm to 150mm. The camera can be built to accept Mamiya, Pentax or Hasselblad lenses. The camera has a new design for the four slit exposure settings. These are accurately machined in a cylinder and can be set in position from a control knob located on the top of the camera. The

effective shutter speeds range from 1 second to 1/500 of a second. It has six rotational speeds from 1 second to 144 seconds depending on the lens being used.

The Hulcherama can rotate from 0 to a full 360° and more if desired. It uses standard 120 or 220 roll film. The Hulcherama is lightweight. The overall size is 5 1/4" deep, 5 1/4" high and 6 1/2" long. It is also equipped with a fold down easy carry handle. The camera is powered by a self-contained 12 volt battery system and an improved solid state electronic speed control.

If you would like further information on this product you may contact: The Hulcher Company, 909 "G" Street, Hampton, VA 2366. Phone 757-245-6190, fax 757-245-2882 or visit our web site at: www.hulchercamera.com.



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Historical Moment

By Kornelius Schorle'

he El Toro Marine Base had its last air show before closure. A Marine panoramist was commissioned to shoot the War Birds at night and the Blue Angels at the crack of dawn. When he told me he had borrowed a Hulcher to shoot the event, I told him that I would come along and back him up with my Super 70 Roundshot.

As we drove to the Marine Base, a beautiful sunset occurred exactly at the wrong angle to the War Birds and we needed to install 80,000 watts of sodium vapor lights. It took 4 hours to crank up

all the diesel generators but finally we realized that everything would look better if the tarmac was wetted down.

Consequently our friend with all his military clout summoned a 10,000 gallon water spraying vehicle. It looked like something from Star Wars. Within minutes, the foreground and the planes were soaked and beautiful reflections occurred in the foreground.

I loaded up the Roundshot and was able to shoot at f11 at 1 second which roughly took 20 minutes. I was able to back myself up and shot with the 150 and the 250. By now, it was 1:30 in the morning. I went back to the lab and processed all of the film and proofed as much as I could, I slept for a few hours and returned for the sunrise at 5:30 am.

The Blue Angels were in the process of being prepared for take off. We had exactly 15 minutes before take off. They would only give us exactly 5 minutes to shoot all seven planes lined up on the ground. We got one shot with all pilots in front of their planes and we were able to use a 350mm lens on the Roundshot to create one of the most spectacular pictures

ever taken of the Blue Angels (this according to their press personnel who were reviewing our work). Anyone interested in the Blue Angels and the War Bird Shots can call 1-800-732-6361. They are \$10.00 each.

Bottom: Warbirds photographed at night, lit with 80,000 watts of sodium vapor lights.

Middle: The Blue Angels with their "birds" behind them.

Top: The Blue Angel jets as they were being prepped for a flight.







What's In Moab from page 5

rado River 2000 feet below. Three scenic byways that follow the Red Rock Gorges and Colorado River begin just a few minutes from Moab.

The Potash Scenic Byway, 34 miles long follows the Colorado past petroglyph dinosaur tracks and arches. The byway ends at the Moab Salt Plant where Potash is extracted.

The Colorado River Scenic Byway starts 2 miles from Moab and follows through canyons and several locations where western movies and commercials have been filmed. Castle Rock, a finger like spire, is visible for several miles, as are the 1500 ft. Fisher Tower and Dewey Bride, part of the National Historic Register.

LaSal Backway winds over the LaSal Mountains and through Castle Valley with numerous alpine and red rock scenes.

For those planning on arriving early or staying on after the convention, there are many longer drives to Natural Brides National Park, Lake Powell, Monument Valley and Capital Reef National Park.

Moab is your starting point for river rafting, jeep tours, bicycling, river boar trips, horseback riding or just hiking with your pan camera.

Hope to see you in Moab.

Down the Colorado

Get ready for a spectacular day! IAPP has arranged with Sheri Griffith Expeditions for a great river trip that you will not soon forget. Sheri Griffith Expeditions sets the standard for quality river trips with gourmet food, well maintained equipment and highly trained guides.

Griffith Expeditions has designed a 6 hour trip for IAPP though a beautiful area with views of Arches national Park and Canyon country. We'll glide through tall red sandstone cliffs streaked with canyon varnish that dominates the rivers edge. A gourmet lunch is served on the bank of

the Colorado surrounded by the towering redstone canyon walls.

Waterproof boxes will be provided for your cameras and valuables. These river rafts are fun and the most comfortable way to see the natural beauty of the river and canyon country.



Colorado River, Professor Valley, upstream from Moab, with snow-capped LaSalle Mountain in the distance. Photo by Liz Hymans.



Fifth Ave - Arches by Fred Yake.



Immersive from page 11

panoramic cameras are both commercially and experimentally available that produce quality results such as the Seitz Roundshot 220VR, the Roundshot Super 35/35S, Globuscope etc. In this case the source image is a single photograph with the vertical field of view dependent on the focal length of the lens used to fill the view. In practice the vertical field is limited to about 90° due to the barrel distortion.

It should be noted that panoramic images that capture any portion of the 360° possible are useable for conversion to the immersive format. Once digitally scanned its is ready to convert into an Immersive panorama.

2. Conventional camera and lenses with rotary indexers are utilized to take a series of "registered" images from which a panoramic image may be "cut and pasted"

together from the digitized series of raw images in the computer environment. Specialized software is available to seam and (un)distort the images to create the desired unrestricted pan field of view. Again the ability to switch to the most appropriate lens is an advantage in filling the vertical field of view.

The series of images (typically between 8 and 20 to capture the 360° can be a challenging shoot considering the lighting, movement of the subject etc. over the image acquisition time. Large field of view lenses i.e. Fisheye Nikkor 8mm f2.8 can reduce the number of images down to as few as two.

3. Specialized lenses that are comprised of combinations of refractive and reflective elements that are capable of capturing the full panospheric field of view could also be used. Hemispherical mirrors have

been successfully used to capture panoramic images. We have used a 6mm lens to capture a 220° field of view with a single picture. This extremely rare lens is a Nikkor 6mm f2.8 that weighs in at 13 pounds and has 16 optical elements to capture its image. Pointed skyward the result is a one-frame image that can be converted into a panoramic immersive image.

From all of the raw images the need for digitization is necessary to work with the images on the computer. Digitization services are readily available and will leave your images as bitmap files. These bitmaps are the input to the seaming and correction for distortion software programs. Of course a digital camera will save you some time and effort as the images are already in this format straight from the camera. Naturally being digital,

the images can easily be corrected for color balance, contrast, brightness etc.

IMMERSIVE IMAGE BUILDING

Single frame panoramic images need only be digitized and then converted into immersive images. Any of the commercially available products on the market are capable of accepting this format to allow you to display your results.

The skyward pointing 6mm lens produces a single image that may be converted to a panorama with a variation of polar to rectangular filter common to most image manipulation software products such as Adobe Photoshop. Cut and Paste images are created in the absence of a single frame images. Various forms of "cut and paste" software are

Immersive continues on page 24

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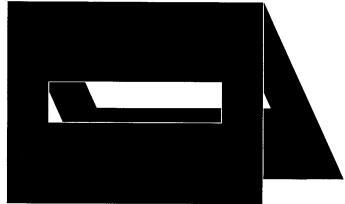
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Historic Panoramas

By Richard Schneider

he "Century of Progress" panorama is one of several examples of work from the Kaufman and Fabry studio in the collection of the National Archives. This image however, is perhaps the best preserved and most technically proficient of the group. Most of the other panoramas date from the World War One era and document the US Government War Exposition (1918) which was also held on Chicago's waterfront. These are found in the Records of the War Department General and Special Staffs, RG 165-PP.

It is unclear why this image would be found in the NASA Record Group (RG 255). The National Archives' Textual Records Division has much in the way of official correspondence regarding official US Government participation in the expo, but none specifically linking the National Advisory Committee for Aeronautics (NASA's predecessor agency).

It appears that the exhibit hall for the official government presence is labeled "Federal and States Group" and can be found on the left side of the print between the two towers.

Among the many interesting things that can be found in the Century of

Progress image is the building labeled "Gettysburg". It is located on the right side of the print, directly above the word "Progress".

Inside this circular building, properly called a "rotunda", was the first version of a large painted panorama of the American Civil War's Battle of Gettysburg. It measures approximately 350 feet in circumference and 26 feet high. This painting is currently in a private collection in North Carolina.

However, the second version of the painting can be seen in the "Cyclorama" at Gettysburg National Military Park in Pennsylvania.

This is one of only two large painted panoramas that remain in the United States. The other is in Atlanta, Georgia and depicts the Civil War's "Battle of Atlanta". It is an even larger work, measuring approximately 360 feet in circumference and 48 feet high.

The history of the painted panorama is an area richly deserving of study and exploration by all interested in art and photography. The painted panorama though not regarded as a "high" form of art, nevertheless provided 19th century European and later American audiences with a spectacle that was unmatched in

its visual impact.

As a technical achievement, painted panoramas are indeed a wonder to behold. It may also be true that the painted panorama helped pave the way for the public's appetite for photographic panoramas in the 20th century.

An excellent, if not obscure, resource on the history of the painted panorama is *The Panorama Phenomenon - Mesdag Panorama 1881-1981*. This catalog "in the shape of an illustrated historiography" was published in the Hague, Holland in 1981 by the Foundation for the Preservation of the Centenarian Mesdag Panorama.

If you have any Dutch friends or colleagues living near the Hague, you'd be amply served if they could pick up a copy for you.

"A Century Of Progress Exposition, Chicago, Ill. 1933". By Kaufman and Fabry, Official Photographers of the Chicago World's Fair. Records of the National Aeronautics and Space Administration. Item 255-P. Silver Gelatin Print. 8.5 x 58'.

A Panorama is More Than a Wide Picture

By Alan Zinn

Taking it all in. A rotating panoramic camera captures more than one can see in a single glance and a span of time described by the movement of camera and eye. The camera's phenomenal power has been significantly underused by art photographers.

Art panoramas, for varied reasons, are seldom more than wide pictures of scenic vistas. Subject and point of view are chosen to give a fairly ambiguous and "normal" looking perspective to be viewed in a single glance. Subjects with broader pictorial possibilities are left unexplored.

The unwrapped picture plane created by the moving point of view contains many nodes and vectors to engage our interest. It resists the organizing principles of composition and balance that is conventional to a square image.

It's potential for a fully comprehensive view can be understood if the picture's scroll-like nature is accepted.

Lookaround continues on page 21



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Lookaround from page 19

A good subject to employ all the unique capabilities of the rotating camera is the urban environment. Urban panoramas are great tableaus containing many levels of interest once you learn how to see them. Besides the wide image's distinct and involving formal quality, there can be multiple textual layers. "All the world is a stage....".

LOOKING AROUND

Imagine a street corner in a large city. It may seem rather chaotic at first. Movement and sound compete for attention. The picture needs to hang on something. What about the fellow over

there by the subway entrance playing Coltrain on his sax? Cool! Look behind you, duck below the camera, and wait for the woman walking her dog to cross the street... Now, give the camera a spin. The picture is done - matted and framed - three hundred and sixty degrees, thrice around.

Buildings, vehicles, and street furnishings advance and recede. People appear to occupy their own space in the environment. There is our "Coltrain" awaiting our notice. Look over here - after one turn through the scene, a bike messenger flashes past. By the third cirkut people

More Than continues on page 23



Photo by Alan Zinn using his Lookaround camera.

CIRKUT CAMERAS FROM MY COLLECTION FOR SALE

I have several #10 Cirkuts that I want to sell, \$2000 to \$4500. Many reconditioned.

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Services: Gears cut - 48 pitch and 32 pitch, 14 1/2 degree pressure angle gears with any number of teeth. Less than 50 teeth - \$25, 50 to 125 teeth - \$35, over 125 teeth - by quote. Gears are fitted with shafts or hubs made to customers measurements. Ron Kline, Northernlight, 1208 Pike Court, Juneau AK 99801-9549. Phone 907-780-6248. panorama@ptialaska.net

For Sale: Noblex 150S, shifting model. Like new condition. \$2000. Peter Randall 603-431-5667. Peterpix@aol.comFor Sale: Hulcherama #067 with 80mm Mamiya "N" lens and extra gear for 35mm lens. Factory serviced and repainted Nov. 97. \$2700 obo. PC- Nikkor 35mm f2.8 shift lens SN1976XX in 9 condition. \$350.

For Sale: Foba tripod, heavy duty, ex. condition, \$750. Peter Lorber, 561-361-0031 or fax 561-361-0494.

For Sale: Hulcherama w/80mm Mamiya lens, 6-volt system, \$3000, w/80 & 35mm Mamiya lenses, \$3500. Jerry Wachter. 410-466-3866.

For Sale: Widelux 1500, Ex. condition \$1200, Widelux F7, filter set, \$650. For info send a fax to Jerry Wood, at 410-268-3114.

For Sale: Three (3) #8 Cirkut cameras, all governor type. 1st is complete with gears/bull gear, wedge, tripod legs, triple convertible Turner-Reich, and Double Goerz Dagor lenses. 2nd is a Century camera and back, with tripod legs and bull gear. 3rd is a F&S camera with a good working film magazine. \$2,600 for all 3. Jeff Weisenburger, 415-752-4262.

For Sale: Noblex 150F, focusing model, \$2,550/used; Noblex 175U/new; Linhof 617, \$3,500/used; #8 Cirkut Outfit camera, \$1,800; 8x10 Ellwood enlarger, \$700; 5x7 Kodak Autofocus enlarger w/out lamphead, \$350; D2 Omega enlarger, \$450; D5 Omega enlarger chassie, \$300; Royal Print Black/White Kodak processor, \$950. David Hittle, 14240-D Sullyfield Circle, Chantilly, VA 20151. 703-222-5721.

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Lookaround from page 21

have appeared or vanished through the subway doors. The woman with the dog looms close to the camera and then moves away. A newspaper vendor stares at us from his kiosk, motionless throughout. We have sliced into the chaos of time and space.

THE LOOKAROUND CAMERA

I have built dozens of panoramic cameras for my own use for over twenty years. Recently, a number of events conspired to cause me to re-evaluate the camera and build copies to sell. One of the Lookaround's unique qualities is the ability to conform to the artist's vision. It will do anything that someone can conjure up in a panoramic mode.

And I think it looks good doing it.

Left: One of Alan's handbuilt "Lookaround" panoramic cameras.

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See page 10



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G R A F I C A

Immersive from page 16

available to create the desired end result of an immersive panorama or panospheric. IPIX by Interactive Pictures is a solid offering in the "cut and paste" technology relying on a pair of images taken from a 180° fisheye lens to be seamed together. This is the only package that allows the 360° by 180° images to be viewed as panospheric images where one has the sense of standing within the scene and can look up and down at the ceiling and the floor. Apple's QuickTime VR also provides a seamer for the 8-20 source images but does not support panospherics.

The common output, regardless of

image capture procedure and building stage, is a 360° by up to 180° bitmap allowing the immersive images to be viewed by any one of the multiple viewing software packages available. Because of this we have achieved good success in converting immersive images from one format to another.

THE IMMERSIVE IMAGE

Immersive images are visually exciting and interactive when viewed on your computer monitor. Using only the mouse, you can pan, tilt and zoom within the image creating your own tour of the site.

This is the part of the process that earns the image the title Immersive, being immersed within an image that surrounds the viewing point. In the

case of a pano-spheric image, the view is continuous in all directions allowing us to look at the floors and ceilings as well creating a total immersive effect.

Just imagine an image of
Michelangelo's Sistine Chapel without
being able to look at the floor or the
ceiling! The primary issue in the field of
immersive imagery continues to be image
capture. The simplification of that process
without the need for rare and expensive
equipment still remains. As long as
multiple frames are required images that
contain dynamic changes in scenery or
lighting will not be possible without
extensive effort on the part of the professional photographer to "register" the
action between shots.

In future articles we will discuss image capture more fully and provide technical details on the photographic complexities of capturing the source imagery for

panospheric images. Panospheric(TM) Imaging Engineering Research (PIER) Corporation is neither a website developer, a reseller for, nor affiliated with any of the products mentioned.

We do however extensively use Immersive Imaging products to provide the best imagery solutions for our clients. If you feel your projects, ideas or products can benefit from immersive imagery please contact us. Should you have questions or require assistance in looking at our site or others that feature immersive imagery, we would be pleased to help.

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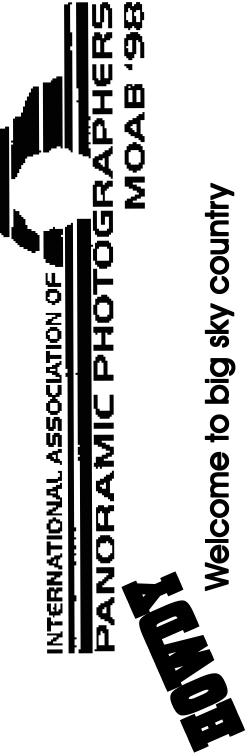


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Social at 7:30 pm, the Official Opening of the Convention on Wednesday morning oramic Photographers event of the year! Tuesday evening there will be a Soda ome join us in Moab, Utah, May 5-9, 1998 at the Moab Valley Inn, for the Pan at 11 am with the final activities at the Saturday evening Banquet.

the art products and services all designed to make you a better panoramic photographer ers, workshops and field trips with great scenery for shooting super panoramics. Make new friends and renew old acquaintances at the social events and round tables. Plan to visit the IAPP camera and equipment display every evening. See our vendor's state of photographers, historians and electronic imaging professionals for four days of speak-The IAPP International Convention is just around the corner. Meet with fellow or increase your photography business.

Queen only \$65 and includes continental breakfast, mention you are with IAPP for the Call the Moab Valley Inn for reservations 1-800-831-6622 for a King or Double

Take part in the IAPP panoramic Photographers contest and/or display some of your latest pans for attendees to enjoy.

Examinations for Qualified Panoramic Photographer will also be given during the

meetings, networking, river trips and photo safaris to photograph scenic spots in Arches Your convention committee has worked hard to arrange an exciting program of and Canyon Lands National Parks and the Colorado River.

on the reverse side. Pre-registration by mail can add to the success and planning for our Don't be left standing on the sidelines. Tear out and complete this registration form International Convention and saves time at registration.



IAPP CONVENTION REGISTRATION

Tear out this registration form, fill out completely, and mail to: IAPP - Moab Registration, PO Box 2816, Boca Raton, FL 33427-2816. Enclose your check made out to: IAPP, or your credit card information.



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Think Ahead! Recording History

By Everen T. Brown

panoramic cameras we record history! The ordinary photograph we take today will be of historical importance someday. The world changes and what was once, is now no more. Imagine the history packed into a panoramic image. Not one frame locked in time, but several frames. A "you-are-there" 360° pan becomes a time machine.

We see the panoramic photos of our predecessors. The history that they captured. E.O. Goldbeck comes to mind with panoramic photos of the armed forces. You absorb the history of the time. You get a sense of place. (The Goldbeck Collection is now housed at the University of Texas.)

Many photos of historical significance are lost over the years when the photographer passes away. The family, not knowing what to do with the photos, throws them away. Or sells them at an estate sale. The people, who then get them, might have only wanted the box they are stored in, and throw out the negatives and photos. The priceless photos and the history are now lost.

Ask your family members if they are interested in using your negatives after your death. If not, you might want to start thinking about leaving your photo library to an institute of higher education, who could use them for a variety of projects. You can start looking for a college or university close to the area where many of the photos were shot. Call and ask of their eventual interest. Find a group that has a natural fit. Then decide on a worthy home for the many years of your work. Make

note of them in your will to allow for a smooth transition. Alert family members of your wishes so they don't feel slighted. Have as much as possible properly labeled. Scholars will work toward preserving the images and allow them to be studied by a variety of students. Which is a better fate than having them locked away in a basement or at the bottom of a garbage dump. As time goes on they become more valuable because you took the time To Think (Far) Ahead!

New Members

Welcome to our new IAPP members.

Robert Pearcy - Florida James L. Amos - Maryland Augustine Cawley - Pennsylvania Vicki Dryden - Florida Robert Kippenberger - Florida J. David Karall - Illinois Ron Rife - California John Morrell - Maine Justin Woolsey - California Carole D'Adsky - Florida Stan Kotecki - Illinois George Mattson - Washington Hugh Bateman - California Mark Parker - New York Dick Evans - California Tim Bass - Oregon Carmella Castiglione - Connecticut Wendell Welch - Massachusetts Ted Schaller - Florida Billy Pounds - Georgia Will Hathcock - Colorado Armando Chenyek - California

Ashok Dilwali - India Alberto Gandsas - Argentina

Class Play Panorama

By Ron Tuttle

Tould I take some photos of the class play during dress rehearsal? Sure, why not! We've all had similar conversations. Nothing unusual, except the request came from my wife, not my kids...and perhaps, that the class was a sign language enterpreter class. The play had both speaking and nonspeaking roles, as well as interpreters for both hearing and non-hearing (seen on the front sides of the photo below), much like closed captioning on TV. I fely very strange and somewhat out of place, as I was the only person there who didn't sign. I decided my V-Pan 617 camera was

the "ideal format" to photograph the stage at the local community college. The stage was small enugh that I could light it by placing a studio strobe with umbrella on each side, out of the camera's view. I photographed from the rear of the theatre using a 210mm lens and an infrared trigger for the strobes. We also made a group photo after rehearsal. I had contact prints of the action shots, and 8x20's of the group photo to pass out to the cast and crew at the cast party the following night. The members were really surprised and elated with the photos, and I felt pretty good for having done it.



IAPP International Convention

Moab, Utah May 5 - 9, 1998

Make your plans now!



Don't miss this one!



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This month's cover:

Yuccas blooming on Island in the Sky, in Canyonlands, with a view of Monument Basin and the Lasalle Mountains.
Photograph By Liz Hymans. ©1990

Upcoming Events

May 5-9, 1998 • IAPP International Convention Moab, Utah

The headquarter hotel for the International Convention will be the Moab Valley Inn, to reserve a room call 800-831-6622, mention you are with IAPP.

Mark your calanders now!

More information inside *Panorama* magazine.

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