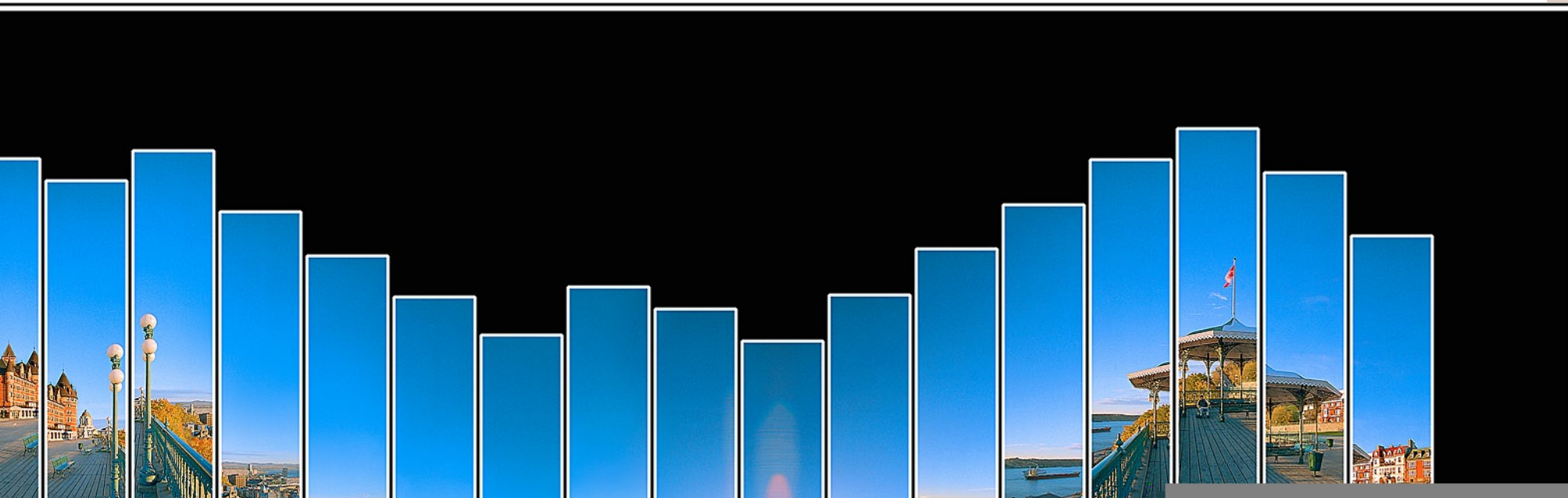


# PANORAMA



the Magazine of Panoramic Imaging

December 2000  
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Panorama is the official publication of the International Association of Panoramic Photographers.

**Submissions for Panorama must be sent to:**

IAPP Panorama  
Peter Lorber  
1385-87 Palmetto Park Road West  
Boca Raton, FL 33486  
24-hour fax: 561.361.0494  
CustomLab@aol.com  
http://www.panphoto.com

*President:*

**Liz Hymans**  
P.O. Box 752  
Tiburon, CA 94920  
415.435.5842  
IAPPpresident@aol.com

*President Elect:*

**Peter Lorber**  
1385-87 Palmetto Park Road West  
Boca Raton, FL 33486  
CustomLab@aol.com

*Exec. Secretary/Treasurer:*

**Richard Schneider**  
P.O. Box 6550,  
Ellicott City, Maryland, 21042, USA  
iapp\_secretary@email.com

*Directors:*

**Alan Bank, Tupelo, MS**  
601.842.5809 - Bank@ebicom.net  
**Bruce Boyle, Ontario, Canada**  
905.683.1600 - boyle@sympatico.com  
**Peter Burg, Maitland, FL**  
407.539.2874 - pete@burgphoto.com  
**Bob McIntyre, Colorado Springs, CO**  
719.633.3265 - rmcint1018@aol.com

*Chairman of the Board:*

**Denis Tremblay, Quebec, Canada**  
450.358.8020 - dtremblay@photopanoramic.com

*Panorama Editor:*

**Peter Lorber**

*Panorama Publisher:*

**Warren Wight**

Articles and other materials submitted for publication may be edited and may or may not be published at the discretion of the editor. Submissions will not be returned.

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## Message From The Board

This is our last issue of the year and it's time to renew. Make sure you get your applications and payment in to Richard Schneider in order to be in the 2001 directory.

2001 is around the corner and March is not far behind that. We are working on the registration form for the International Convention now, but if we miss the deadline we will be sending a separate mailing with the registration form in early January so please keep a look out for it. Don't wait!!! Make your plans now to attend. The phone number for The Chateau is 707-253-9300 and the dates are March 28-31. We are looking forward to attending and seeing many of you there.

In closing, we wish all of you and your families a very HAPPY and HEALTHY HOLIDAY SEASON. ■■■

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## Secretary Says New Ideas and Procedures

By Richard Schneider, Secretary / Treasurer

As the 2000-year closes, there are several important reminders I wish to impart on our members and corporate supporters.

You will find a flyer enclosed that comes from MyAssociation.com that details some purchasing/gift specials you may wish to consider this holiday season. I encourage ALL IAPP members to become members of our companion site, <http://iapp.myassociation.com> in order to take advantage of networking tools and on-line shopping deals that are available. Remember that every purchase you make through our companion site benefits IAPP. If you ever have questions about this new site, please do not hesitate to phone or e-mail me. During business hours it is best to reach me at 301-713-6714.

For all those wishing to renew their membership for the 2001 calendar year, PLEASE make the effort to send your completed membership application and payment to me by the end of December 2000. We want to ensure that all new and renewal members are present and accounted for in the upcoming 2001 Membership Directory!

For those wishing to renew their membership using FAX as opposed to conventional mail or e-mail, please use the following FAX number, as volunteered by our president-elect, Peter Lorber: 561-361-0494.

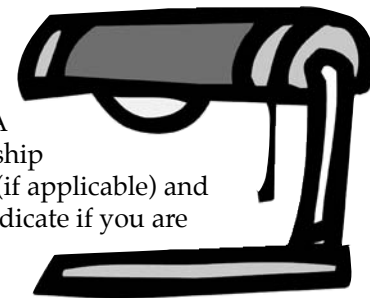
Also, on the application, please indicate

your PPA membership number (if applicable) and please indicate if you are an IAPP Charter Member.

For all our corporate supporters, PLEASE settle any outstanding invoices you may have for advertising in IAPP publications for the 2000 calendar year. If you wish to advertise in the upcoming 2001 Membership Directory, please have all artwork prepared and delivered to Warren Wight by February 1, 2001. The price per quarter page advertisement is still \$99.00. Larger spaces are available on request. I have sent invoice forms for 2001 Panorama Magazine advertisements to each of you, if you need extra copies or perhaps did not receive the forms, please visit the IAPP website or call/e-mail me.

The year 2000 was a great one for IAPP and I was glad to have been a part of it. Special recognition should be afforded to Peter and Jan Burg for organizing and hosting a real highlight to the IAPP calendar: the Orlando Conference held this past October. 2001 and with it, our International Convention, promises to be another exciting year. I hope as many members as possible can participate in and benefit from all that this organization has to offer.

Happy Holidays to One and All! ■■■



Visit IAPP on the World Wide Web>>> [panphoto.com](http://panphoto.com)

## How I Documented the 'Turn of the Century'

By John Post

In 1999 I decide to somehow document the Turn of the Century, one of the true once-in-a-lifetime events that one can experience.

My idea was inspired by what earlier photographers had done to commemorate other unique events of the past, a crowd photo. Of course it would have to be done in the 617 panorama format that I shoot along with my locally recognized style. I wanted to make it a unique and momentous event for the people of my town, Manhattan Beach, CA., it also had to have a recognized Manhattan Beach landmark.

After months of thought it came to me. I would do an aerial photo of residents gath-

ered at the Manhattan Beach Pier at noon on January 1st. In Nov. of '99 with some help from a local merchant organization I got a couple newspapers to carry some articles



*New Year • New Century • New Millennium*  
MANHATTAN BEACH, CALIFORNIA

and I ran some ads promoting the event. My request was for any residents who wanted to be in the photo to show up at the pier on January 1st at noon. I had no idea how many would show.

I departed the airport at 11:30am in my favorite aerial shooting platform, a Robinson R-22 helicopter. The weather on New Years day was overcast, not ideal,

but was acceptable. About 2500 people showed up. I was over the crowd shooting for 15 minutes. We made several circles at about 200 feet, I shot Agfa Optima 400, 120 negative film at 250/f16, 4 rolls (16 shots).

I selected one of the images and

produced a 16" x 36" panorama poster of the event and have been selling it out of my Manhattan Beach Gallery through out the year along with original prints of some of the other images.

In July the City of Manhattan Beach buried a time capsule to be opened in 25 years, along with a variety of things a copy of the "NEW YEAR, NEW CENTURY, NEW MILLENIUM" poster was included.

The project achieved my intended goal, to give the people of the community something special to look back on as we proceed further into the 21st century. It has been fairly profitable on the business side and the added profile in the community one gets from doing these things never hurts. ■

## Wide Angle Rotational Panoramic Perspective In Landscape Photography

By Will Landon

The panoramic photographer has a unique opportunity to extend his vision when working on a book project such as my book on Mt. Rainier. Though many subjects were captured with conventional format 4x5, 645 and 35mm cameras, others were beyond the scope of those formats. Due to the tight quartered terrain of many subjects at Mt. Rainier I discovered that I could use a Roundshot rotational wide-angle camera to render a unique interpretation of those subjects. The cameras vertical angle of coverage ranged from 40 degrees up and down to 28 degrees down and 52 degrees up when the lens was shifted. Because it was rotational in design it could do an entire 360-degree rotation as well.

Most photographers are familiar with the usage of wide angle lenses on conventional formats such as a 4x5 camera with a 75mm lens that can be tilted, to achieve sharp close-in foreground detail that leads the eye to the subject material in the background. This is the near/far effect popularized by David Muench and now universally used by most landscape photographers. Now add to that capability and locate subjects and the camera position so that the rotation of the panoramic camera also begins and

*More Wide Angle Rotational on page 11*

## Richard S. Fowler Foundation Update

At our recent board meeting on October 12, 2000 in Maitland, Florida, Madam President Liz and a quorum discussed the need to promote our newest inner organization, the Richard S. Fowler Foundation. Our goal is for 100% of the membership to donate a minimum of \$5.00 per member for a total of \$3,000, by the time the current administration completes its term in June of 2001. Included in this issue of Panorama is a brochure describing all the basics of the Foundation including a pledge form that you can send to our secretary/treasurer, Richard Schneider in Ellicott City, Maryland. We hope that each member endorses this action as well as supports the Foundation. Contact Alan M. Bank, Deputy Chairman of the Foundation if you have any questions at P.O. Box 1456, Tupelo, MS 38802. Phone 662-566-2699; Cell 662-790-3535; Fax 662-566-7207 or e-mail bank@ebicom.net or Bruce Boyle, Chairman, boyle@sympatico.com. ■

**Deadline For March Panorama is February 1st**

## 2001 International Convention

**Napa, California - March 27 thru April 1, 2001**

The next IAPP Convention will be held in the vineyards and rolling hills of Napa, California, about 100 miles north of San Francisco. The wildflowers will be at their peak and we invite you to join us for wining, dining, and panoramic photography. You'll have opportunities to see and use the latest in panoramic cameras.

### The International Convention:

We present opportunities to make friends, meet face-to-face with panoramic photographers, historians, and inventors, and those working on the cutting edge of technology in digital photography, virtual reality, and computerization of panoramic photography. Our convention's most important objectives are 1) formal presentation of new and interesting material, 2) informal exchange of information and ideas, and 3) photo opportunities with vendors and other members.

*Photos courtesy of Gerald French.*



### Accommodations and Airports:

Reservations can be made with The Cha-teau, 4195 Solano Avenue, Napa, California, 94558 USA. Phone 707.254.9500. Be sure to tell them you're in IAPP to get the special convention rates beginning at \$90 per room per night for either single or double occupancy. Convention registration and an opening social will be the evening of March 27, 2001, and our closing night banquet will be March 31. The closest major airports are San Francisco and Oakland, and airport shuttle service from either airport to the



hotel costs \$23 per person.

### Registration:

Registration forms, optional activities, and information about the photo contest and raffle will be available in our next issue.

### Tentative Convention Schedule:

<b>Tuesday March 27:</b>	Evening pre-registration and social
<b>Wednesday March 28:</b>	Morning registration and seminars Optional 3 hour Wine Train Lunch Tour of Napa Valley Evening Trade Show and Round Table Discussions
<b>Thursday March 29:</b>	Seminars and Optional Field Trips Evening Trade Show and Round Table Discussions
<b>Friday March 30</b>	Seminars and Optional Field Trips Evening Trade Show and Round Table Discussions
<b>Saturday March 31:</b>	Morning Business Meeting, Group Photo, Photo Safaris Evening Awards Banquet and New Officer Installations

## IAPP Members Down Under

By Everen T. Brown

I spent three weeks in Australia for the Sydney 2000 Olympic Games. Between attending events I had a chance to visit two IAPP Members and talk "Panoramic" with them.

An hour and a half north of Sydney is the headquarters for Ken Duncan Panoraphs. I met with Ken personally and got a tour of his main office and his lab. Ken has three galleries in Australia, primarily aimed at the tourist trade. He specializes in images of Australia. Brilliant colors and classy gallery space are his trademarks.

Ken has also produced a variety of books, Australia Wide is probably his most well known book. He completed a series of books before the games, entitled, "Olympic City". He also offered a series of prints before the Olympics, in conjunction with the Olympic committee.

He employs 42 people and everyone was quite busy. To maintain quality control, he has his own lab, Created for Life. Printing on Ilfochrome Classic Paper, he believes it still has the best archival qualities of any photographic material. The lab is accepting work from other photographers and does a great job! To learn more about the lab and its services you can contact them at [cfl@kenduncan.com](mailto:cfl@kenduncan.com).

Ken has been in the United States over the past two years working on a book about the United States. His goal is to

# The \$20 Panoramic Camera

By John Nordby

We all enjoy the many pleasures of modern panoramic cameras, with their often-expensive optics, complex mechanisms and circuitry. There is a simpler and infinitely cheaper option available to capture that "grand view". It is the panoramic pinhole camera. Often it is as fun to use as its expensive brothers are. This description of my home-built panoramic pinhole camera may inspire you to give it a try and discover hours of shooting fun.

I wanted a panoramic pinhole that uses 120 film rather than sheet film. This offered several challenges; how to load and advance the film, how to keep already exposed film from re-exposure during subsequent shots.

The enclosed diagrams and photos show the resulting camera. It is a 10-inch can with a rigid vertical cardboard divider, which accepts either 8x10, or 4x5 sheet film, or a panoramic insert mechanism which holds 120 film.

The full film roll, and take-up spool, are held above the cardboard base by angle brackets.

Through these brackets, small 1/8-inch bolts with springs support both spools.

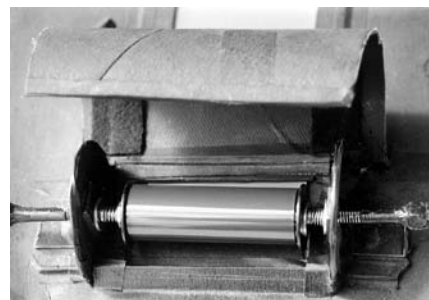
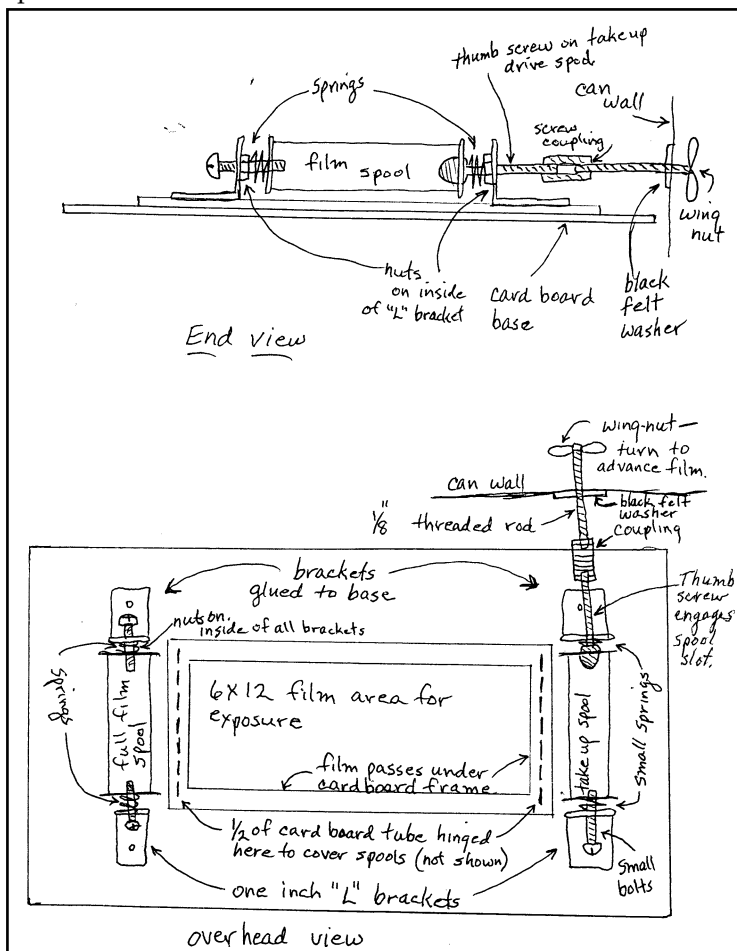
One end of the take-up spool uses a thumbscrew. Its head engages the spool drive groove and its threaded end, supported by the angle brackets, couples with another bolt through the can side and is used to turn the spool to advance the film.

The unexposed film feeds from its spool passing under a cardboard fram-

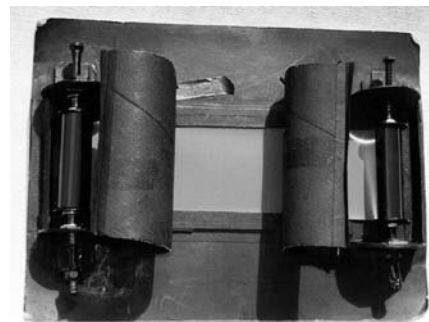
ing track to the take-up spool. Both spools are covered by half cardboard tubes hinged to the base with tape. These cover the film spools and keep them light safe during exposures. The entire apparatus is

*More \$20 Pan Camera on page 6*

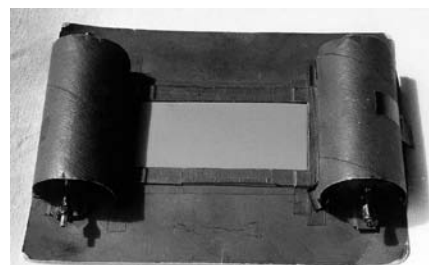
*Right: Vertical Pan take with the "Pinhole Panoramic Camera"*



Roll film support closeup (loaded)



Film roll covers open



Loaded and ready to insert into can



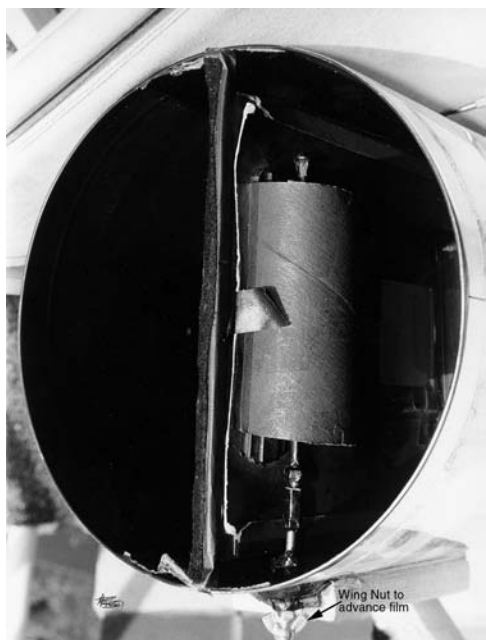
### **\$20 Panoramic Camera from page 5**

sprayed flat black. Counting turns of the exterior screw spaces frames. Film is loaded and unloaded in the darkroom or a changing bag. Negative size is 6x12 giving 5 to 6 shots per 120 roll.

As in all pinhole cameras, exposure depends on lighting, film speed and focal length. Picture clarity depends on pinhole size and shape. See [Pinhole Photography](#), by Eric Renner for standard pinhole practices.

For about \$20 you can enrich your panoramic experiences by combining them with pinhole photography for added fun. ■

*Mechanism loaded into can*



*Above and below: Two more panoramas created using the homemade pinhole panoramic camera.*



**Make Your Plans Now For The IAPP International Convention, Napa, California**  
**March 27 thru April 1, 2001**

# Orlando 2000

By: Addie Lorber

We all look forward to our international conventions every 18 months, but just as important are the meetings in between. Jan and Peter Burg hosted a very successful gathering in Orlando in October with attendees from California to New York. In addition to current members, the IAPP picked up some new members as well.

Jan worked very hard to arrange the entire weekend for both members and spouses. We were fortunate to have the

Winter Park Art Show that same weekend. Steve Vaughn, a long time member, had a booth for his wonderful panoramic images.

We had representation from Kodak, Fuji and Art Leather who were sponsors, as well as a variety of speakers covering new products, digital imaging and marketing. Peter Burg and Richard Fowler gave us the history of panoramic cameras that was fun to listen to. Panorama publisher Warren Wight gave a talk on

stitching images that is of interest to many members.

Jan arranged a cocktail party hosted by Peter of Regent Galleries. His gallery specializes in panoramic images. Peter Burg also saw to it that we had a tour of a full service lab, including digital applications. New member Charles Curry and his wife Susan invited all of us to their home for dessert after our feast at Bucca de Beppo.

Saturday was set-aside for Sea World thanks to D. John McCarthy and Fuji. Pete and Jan hosted a dinner party at their home Saturday night, and we capped off the weekend by Sunday brunch.

It was a very successful and informative meeting and I for one gained a lot by being there. Now I can't wait for our International Convention in Napa in March. ■



Photos by: Jeff Weisenberger, Alan Bank, Warren Wight with Sunday Farewell Breakfast photos by Conner Wight (age 4).



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## Panoramic Photomural

By Mike Westmoreland

Last year I was commissioned to shoot a photograph which was to finish up as a photomural at a permanent exhibition space in London (below).

The client is a manufacturer of very elegant street furniture, which is in use in many cities around the world, and the picture is a street scene (Parliament Square) which acts as a backdrop for his products.

The wall it had to fill was approximately 4000 square feet; the dimensions 45 metres by 9 metres. The printing was on cloth by digital inkjet; the technique involved a very clever piece of technology whereby many sections of the picture were assembled together by some kind of heat welding, and the resulting joins are virtually invisible (even on very light parts of the sky)

The original was a black and white negative measuring 10 inches by 2 inches; the camera was a Hulcher with 50mm Mamiya shift lens. A little calculation will demonstrate that we are talking here about a linear enlargement of 150 times. The photomural image is very sharp and even all over from a few feet away and there is no trace of banding or grain. This would be a tall order for a conventional camera; from a rotational

one it is amazing, and a revelation to me just how far such things can now be taken.

Shooting a suitable picture involved a good deal of trial and error stuff at various locations and many meetings with the client before he finally decided on how he wanted it to look. The final shot was a bit of a nightmare because it involved a location which had endlessly moving one-way traffic all around the camera...but it was travelling in the opposite direction to the rotation of the Hulcher. The traffic had to be a substantial part of the picture but distortion was not an option, particularly if each vehicle finishes up looking like a vertical pencil. I thought about digital skull-duggery, which might have been possible if the square had been ever empty of traffic, but this never happens from sunup to sundown. The final picture was accomplished with the aid of maximum rotation speed, (and quite a bit of luck); which of course involved compromising all the other parameters, and which makes the overall quality even more remarkable.

Only one regret; because it's a private site it won't get seen by the public at large. ■



# Contact Printing B&W Cirkut Panoramic Negatives

By Randy Vaughn-Dotta

I recently had the great pleasure to make contact prints of 42 cirkut photograph negatives from the Harold Schutt and Donald Larson collections held in the Sanoian Special Collections Library of the Henry Madden Library here at California State

University, Fresno. The Schutt collection contains materials on the history of Tulare County, California and the panoramic images show local agricultural scenes. The Larson collection contains materials about the 1915 Panama Pacific International Exposition in San Francisco, California and the panoramic images show the buildings during construction, at completion, and the grounds.

Twenty-five years ago the Special Collections Library

obtained its first cirkut negatives of the 1915 San Francisco Panama-Pacific International Exposition and the librarians were eager to have prints made. In 1975 I was a student assistant to the campus photographer, Mr. Robert Michelotti. Because I was fascinated by panoramic photography, I received the assignment to print the one hundred 8" and 10" B&W cirkut negatives of the 1915 Panama Pacific International Exposition in San Francisco.

The printing procedure Robert & I choose in 1975 was to rotate our Omega D6XL enlarger around and have it project Polycontrast filtered light onto the floor from a height of about 9 feet. This height gave us an even light spread

Schutt & Larson Collections. They now have a large collection of standard and panoramic images and other materials covering most of the world's fairs and expositions held between 1851 and 1940, as well as standard and

panoramic images detailing local history here in the San Joaquin Valley. By the year 2000 they were ready to have all the new 8", 10" and 16" cirkut negatives printed.

Twenty-five years after the initial printing many things have changed. Robert Michelotti has retired and I am the campus photographer. We no longer have the trusty Omega enlarger, and the new enlarger cannot rotate to project onto the floor. My solu-

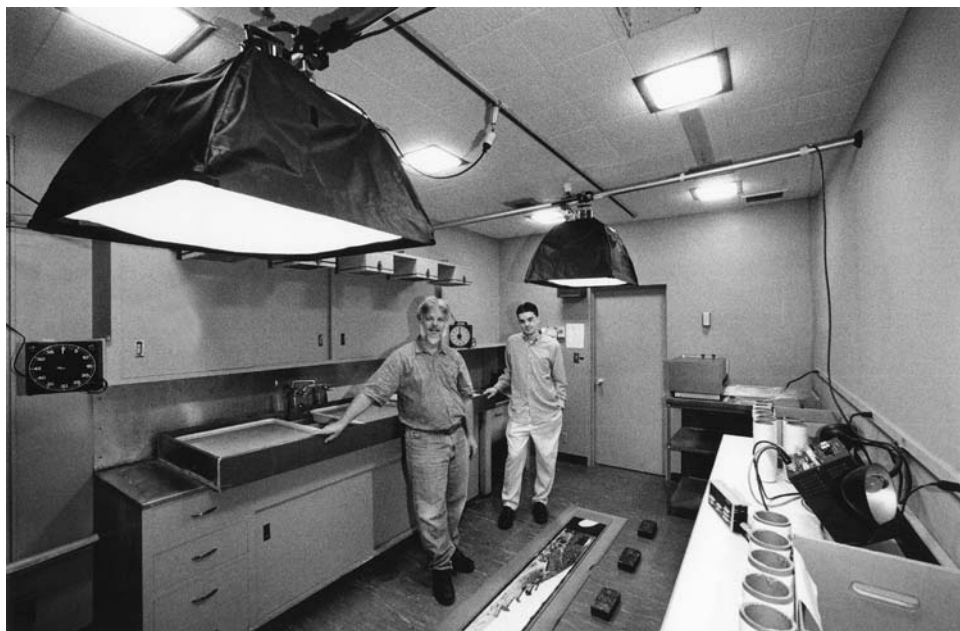
tion for a light source was to suspend the studio strobe soft-boxes near the darkroom ceiling from the walls with our Bogen expanding poles (see photo). I used only the modeling lights, set on low, for printing and had the power-pack timed on and off by our standard enlarger timer. Exposures ranged from .9 seconds to 20 seconds due to density variations in the negatives.

The printing base was one long piece

of 1" thick foam. On top of the foam we set the printing paper. On top of the printing paper we unrolled the negative. On top of the negative was a long sheet of heavy glass. Some of the negatives, before coming to the university, had been poorly stored and as a result the normal round shape had been flattened into an oval. This oval shape when laid out for printing would not always lay completely flat under just the weight of the glass. So in addition to the heavy glass I used four bricks of solid lead for added weight to encourage the film to be flatter. Some of the negatives were so "set" to the oval shape that the resulting prints go in and out of focus in vertical bands across the entire width of the image.

The library supplied an assistant, N.N. Orgill, to help in the weeklong printing session. N.N. and I worked together to cut and lay down the printing paper, to gently roll out the negative, to very gently lay the glass onto the negative, and to extremely gently place the lead bricks atop one edge of the glass. I was responsible for pushing down on the opposite side of the glass from the lead bricks to achieve the flattest possible contact of the negatives with the paper while N.N. was responsible for operating the timer.

In reverse order, we would remove the bricks and glass, roll up the negative and then roll up the printing paper. Together we would roll the paper back and forth through the processing and preservation chemicals. Washing was



Randy Vaughn-Dotta (left) and N.N. Orgill (right) shown in the B&W printing darkroom with the studio soft-boxes overhead, contact printing materials on the floor, the processing trays and sink in the background, and the powerpack, timer, and unprinted rolled panoramic negatives on the right. Photo by Khaled Alkotob, used with permission.

which more than covered the eight-foot maximum length of the longest negatives we had at that time. I printed those negatives onto double weight fiber-based Polycontrast paper cut from 36" x 100' rolls. The prints were dodged and burned as needed (have you ever tried dodging and burning an eight-foot wide print?) as well as archivally processed. In the twenty-five years since that first panoramic printing session, the Special Collections Library has added to its

More Contact Printing on page 10

## Contact Printing *from page 9*

done in a Pakolux drum washer, drying was done in a roller transport dryer.

As a photographer I find that there are many satisfying aspects to printing old photographs. The art and craft of print-making is one of them. Achieving the fullest possible tonal range while holding detail in highlights and shadows is just pure enjoyment. I'd love to see an

original print from the same negative to compare the print qualities.

Another satisfying aspect is watching the image of old photographs come to life in the development tray. Watching the old images appear takes my imagination back to the moment of exposure and I wonder about the circumstances surrounding the taking of the original

photo. Were the people cooperative? What were the choices in backgrounds? What decisions were made concerning film, exposure, camera adjustments, depth of field, degrees of rotation, etc.?

I believe that the most significant aspect of photographs is the recording of mankind. When you see the people and the clothing worn by persons in group

photos taken eighty-five years ago, everybody seems to pause and study the faces and ponder what life was like for those pictured. People from an earlier time interest us because the people in the photograph have the possibility of being an aunt or uncle, a grandparent, or some other distant relative. Remember the theory of six degrees of separation - any two persons will be connected



### *Dry Yard Photo:*

*Work crew laying out trays of grapes on the ground to be sun dried at an unknown farm in Tulare County, California. Photographer unknown, used with permission of the Sanoian Special Collections Library of the Henry Madden Library at California State University, Fresno*

### *Dry Yard Photo:*

*Group panorama of a work crew at an unknown farm in Tulare County, California. Photographer unknown, used with permission of the Sanoian Special Collections Library of the Henry Madden Library at California State University, Fresno*

### *Panama-Pacific International Exposition Photo:*

*A large crowd of VIP groups gather for a group photo, on October 4, 1914, before the 1915 grand opening of the Panama-Pacific International Exposition in San Francisco, California. Photographer unknown, used with permission of the Sanoian Special Collections Library of the Henry Madden Library at California State University, Fresno*

to each other by no more than 6 acquaintances (a friend of a friend of a friend of a friend of a friend of a friend).

I have been a staff photographer at California State University, Fresno for 16 years.

I can be reached at the following addresses:

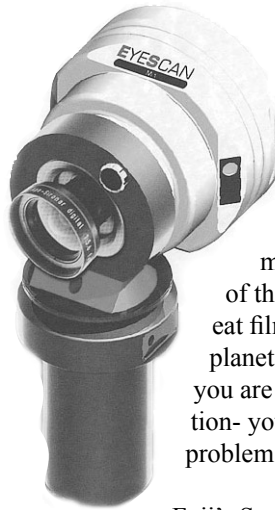
Randy Vaughn-Dotta, Photographer  
Academic Innovation Center  
California State University, Fresno  
5200 North Barton Avenue  
Fresno, CA 93740  
Tele 559-278-4656  
Fax 559-278-7550  
randy\_vaughn-dotta@csufresno.edu

## Digital Update

By Kornelius Schorle

*Whats New?...Chips' A Hoi! CMOS Versus Super CCD!...Scan Line Chips...Fast Forward...The New Today Film-Chips Tomorrow...Film At 11:00!...Wow, They Said It Would Never Happen-Not In Our Life Time...Am I Dea? ...What Time Is It?...Who Said That?...Over The Edge!*

DIGITAL PANORAMA CAMERAS...The antique Panoscan, 20-45 minutes to scan 360 degrees. How about 90 seconds and a 3.1-gigabit file? Here comes the Metric 2, designed for the German "NASA", an inter-stellar measuring device that can produce an 8' x 40' mural so sharp that your eyes bleed! I will be bringing it to the PMA Show at Orlando, in February and to Napa in March. Pro Photo Connection, Inc., is proud to be the sole importer and distributor of



this phenomenal device.

It is truly a Digi-rama camera, much to the chagrin of the reactionaries that eat film and choke the planet with chemicals. If you are not part of the solution- you are part of the problem!

Fuji's Super CCD was only

the beginning, 6.2 megapixel but the 18 meg file is excellent. The CMOS chip by Fovean is 14,000 x 14,000, that is 2 x 35mm film resolution---hard to believe, but the future arrived early!

Kodak is following with a similar chip---I can't wait for PMA!

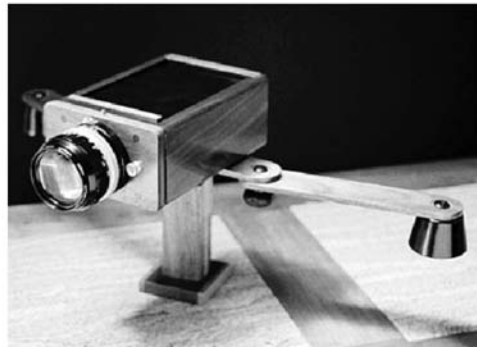
The sooner we can replace film and chemicals the better it is for the planet! Especially if the replacement is more convenient, faster,

*More Digital Update on page 13*

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## Wide Angle Rotational from page 3

ends with a subject that is close at hand on the left and the right. That is the essence of the approach that I used in many scenes in "Rainier Panorama, which contains twenty two images made on the Roundshot camera, many of which have this double near/far effect, both on the sides as well as the entire foreground of the panorama.

In terms of lens selection to achieve this double near/far effect I would recommend a 28mm or 35mm lens on a medium format rotational camera. The same effect can be achieved by a swing lens camera, but due their limited rotational capability (usually 136 degrees), they do not have the capability to go around far enough to pick up laterally located items of interest in most compositions.

The best resolution can be achieved with a camera that rotates on the nodal point of the selected lens. Look for this capability when choosing a camera to do double near/far photography.



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## Digital Update from page 11

sharper, more predictable, repeatable, archival and user friendly. Photographers are finally free of labs that force their improper-inappropriate colors on them and blame it on film, cameras, chemicals, light leaks, bad judgment, stupidity and arrogance.

A specially designed Rodenstock 35mm Apo Chromatic beautiful piece of glass that is capable to produce these incredible images on a scanline chip is the optical heart of the system. Other lenses can be used but the user will see with his own eyes the short comings of optics used on film which can only produce 1/2 the resolution.

There will be a software package available soon that rectifies any linear distortion caused by swing lens and other rotational cameras. Nice fallout is that you can use the system on swing lens camera produced images. Looking through the current and past panorama magazines I see lots of images that can benefit from its use.

Kornelius Schorle' is not only a contributor to this magazine and other fast forward publications, but he also runs a digital lab where he sees very little film anymore. Files come by E-mail, by Zip, CD, Floppy, Jaz, Smart Media, Memory Sticks, Micro Drives, etc. The digital files are printed through a Lightjet 5000 up to 4 feet x 8 feet, at close to 2x-film resolution. He also uses a Fujix, Fuji Frontier and an Epson 9500. For fine art Gicle'e, he uses a large Iris printer. ■

*Scene below is the old military police building in Berlin. Taken by the Eyescan M1 360-degree camera. (Don't know who the photographer was) It creates in 90 seconds a 3.1 gig file. Transfer is faster than fire wire and USB. A special board, called File Getter has to be installed to a PC to transfer the tremendous size of the file. A special battery powered semi-portable computer with a unique screen; a large hard drive that is battery powered is available to accompany the camera. A retrofit to your own PC is in the works.*



## Shooting A Total Eclipse of the Sun

By Ronald Page

As an amateur panoramic photographer and an amateur astronomy guy, my wife Nancy and I have traveled to many exotic places to view total solar eclipses. I have wanted to "marry" the two hobbies for some time now and the August 11, 1999 eclipse over Central Europe seemed to be the opportune time to attempt it.

I usually start planning these adventures about a year before the event takes place. As there are hundreds of eclipsers who also do this, it is important to me to be able to shoot these pictures away from other amateurs who might "point and shoot" their electronic flashes in my photo's field of view.

I originally planned to shoot this picture on Turkey's northern coast over the Black Sea, but about six months or so before the event I realized that while I'd be on a coast I'd be facing land. This meant that the viewer wouldn't be able to tell it was a coast because the water would be behind me! So much for timely planning.

Anyway, realizing the solution to the

dilemma was to go to Bulgaria (or Romania), I contacted the Turkish Consulate and was informed that we would need multiple entry visas to allow us to enter Turkey, leave it and return. No big deal, \$45 a piece.

Well we had a great time in Turkey. We took a grueling bus trip from Istanbul to Varna, Bulgaria and luckily met up with a Canadian-Bulgarian woman whom we tagged along with and who graciously bargained the taxi ride for us.

I actually can't remember the name of the town where we shot the photograph and the only maps I can find don't list it but it was a resort area and the hotel we stayed in was comfortable enough for a one-night stay.

About two hours before the event we walked out to the end of a concrete pier and staked our claim to the spot insuring that there'd be no errant flashes in front of us. The sun's 59 degree altitude necessitated a vertical shot with my Roundshot 220-70 and a bracket that I

*More Total Eclipse on page 15*

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## Graffiti Walls

By Dan Forthuber

There are some old, abandoned buildings scattered along the Bay here in Eureka. The brush has grown so high that the structures are hidden from view. The local graffiti artist's have been using them for their easel. I started photographing their artwork in 1998. I go by every other month to record what they have been painting. I find the artwork interesting but have no idea what most of it means.

The artist's are most active spring thru fall. During the winter months the area is inundated with a couple of inches of water, too wet to paint. ■



## Tall Ships with NYC in background by Stephen DelRoy



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### Total Eclipse from page 13

use to hang the camera upside down had been modified for vertical shooting as well.

If the full length of this negative had been printed you'd see a blurry image of me jumping up and down as my wife looks on curiously.

These prints are selling for \$50.00, postage paid. ■

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Total Solar Eclipse  
August 11, 1999 - Black Sea Bulgaria

## More Grafitti Panoramas

By Dan Forthuber



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# Stock Imaging For A New Millennium

By Joseph DeRenzo

As all of you know, photography has come a long way in the last 100 years. In particular, the last 20 years have seen changes that continue to accelerate. Changes not only in the photographic process, but also in the way photos are created, viewed and utilized. The internet is an obvious example of this, but it is by no means the only one. As this new century begins it is imperative that photographers not only keep up to speed with these changes, but also anticipate the future. The photographers that can do this will be the ones most rewarded. How many of us knew 10 years ago that royalty-free images would become a reality and make such an impact on the photo industry? Where is digital imaging taking us? What effect will that have on the way we go about creating and marketing our images? These questions are important given the fact that we are, only now, scratching the surface of the "Digital Revolution". Anticipating the next 10 years with as much foresight as possible will make the difference in the levels of success each photographer will

enjoy. With all of this in mind, I thought it would be a good time to sit down with Adrian Peacock who is the Creative Director at Pictor in London. His many years of experience in the stock photo industry has always provided me valuable insights.

**Joe:** What have been the biggest changes in the stock photo industry that you've seen in the last few years?

**Adrian:** The changes are happening at a massive rate and effecting the lower end especially. The first port o' call for our clients has been "Royalty Free". If they can't find what they're looking for there, they look at "Rights Protected" images. The last resort after that is "Assignments". What we've been seeing with "RF" is that even those images are becoming more stylized. Much more so than when "RF" first appeared.

Clients will still pay for unique images, but we've had to compete with the other companies offering "RF". We're doing



*Noblex image of New York City Subway by Joseph DeRenzo.*

this online instead of with CD's. If Pictor and our photographers don't compete for some of the "RF" market, it's the same as just giving that money to our competition. Our aim is to put images that are right for "RF" and keep the unique images working for us as "RP". If you have a basic shot of the Statue of Liberty and its marketed as an "RP"

image, don't be surprised if it doesn't sell much.

Our website will have "RF" images a client can download and pay a 1 time fee with unlimited use after that. But if that same image is downloaded by several clients, then it has a chance to generate

*More Stock Imaging on page 18*

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## Stock Imaging from page 17

more sales than it would otherwise. This is different than a client buying a CD and only using a small number of the images. Our clients would only pay for what they need and use.

**Joe:** How about subject matter?

**Adrian:** Subject matter stays pretty much the same, it's the way subjects are photographed and how clients are using images to communicate to the public. "Lifestyles" and "People in Motion" have always been our biggest selling images. A big influence in this area has been Photonica. Clients even began asking for images that had that "Photonica Look". The internet and MTV have been influencing the look of stock images as well. Words such as "Edgey", "Hip" and "High Impact" are ones we hear from clients all the time. It's even cool to shoot grainy black and white again, so long as the image communicates a single well-defined idea.

**The question now is:** How do we as Panoramists get in the game and compete successfully with all that is going on in the stock photo market? I believe the answer lies in expanding our capacity for original thought and applying it to photography.

Go out and break some rules. Be willing to make some mistakes and above all, have fun! We can no longer depend solely on the panoramic format to distinguish our work from all the other images being created. Our imaginations have to dig deeper than that. ■

Websites to check out:  
www.pictor.com  
www.photonica.com

*Vertical Noblex image of the Flatiron Building by Joseph DeRenzo.*



## Photographing the Napa Valley Wine Country

By Gerald L. French

The Napa wine country is more than visiting wineries. It's an ever-changing lifestyle with a rich history. Enjoy art shows, summer music in the vineyards, tasting wine, rubbing elbows with the old world winemakers, and culinary gourmet experience.

Robert Louis Stevenson honeymooned near Calistoga and included his impressions of the wine country throughout his writings. Jack London, known as the "Sailor on Horseback", had a home in Glen Ellen where he entertained politicians, foreign dignitaries and other famous writers. Actor, Robin Williams, lives nearby and is seen in local restaurants.

Every season is exciting. In the spring, bright yellow mustard fields carpet the land. In summer the vineyards are green rich loaded with "red berries" hanging from the vines. And in the early fall the vineyards are being harvested with verve. Later, after the first cold snap, the vineyard leaves are full of color. Just pick your season.

Festivals spread special joy throughout the

year. The Mustard Festival in the early spring starts the season. At this festival there is blue grass and jazz music, join the winemakers in wine tasting and enjoy numerous food booths. Once you have visited the wine country, you'll definitely want to come back.



*Having fun at the Mustard Festival.*

To photograph the world's premier wine country, in Northern California, just 50 miles north of San Francisco, you'll need the right tools. A couple of wine glasses, a corkscrew, fresh french bread and your favorite cheeses. Also, a camera and some

film would be helpful. To complete your toolbox, buy a map showing all the wineries and the Compass's guide book, "The Wine Country."

The best way is to do a quick "overview", then settle into the region you wish to photograph. Visit the winery first, hours are normally 10 am to 4pm. Try to avoid the weekend crowds. If you want to get away from the crowds and shoot in the vineyards, always ask permission. This is a courtesy the wineries greatly appreciate. You may not know that the vineyard has just been

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### Don't Miss The Fun!

sprayed with pesticides. The owners love to cooperate with photographers. More often than not, they provide wine tasting.

Ballooning is another way to do an "overview." You have to get up early because dawn is best time to float over the valley when there are slight winds. Perfect for taking pictures of the wineries directly below. Look for abstract patterns in the vineyards. Be sure to take along a telephoto lens to shoot other colorful balloons floating nearby. Most balloonists top the flight off with champagne.



*Ballooning is a great way to see and photograph the wine country.*

Food and wine go together like Napa's brilliant sun and blue skies. There are numerous restaurants available. Skip the restaurants. There is nothing worse than waiting for a table, then waiting for a waiter and finally waiting for the food. Instead, look for Napa's numerous delis. Their gourmet selection of wines and fine foods are outstanding and are reasonably priced. Enjoy your picnic in great outdoors.

Napa Valley is long and narrow. The majority of the well-known wineries are located on the West Side of Hwy 29. On your first scouting trip, take Hwy 29 to Calistoga, then return on the Silverado Trail on the east side. The trip should take just a half-day.

From Napa, heading north on Hwy 29, you will follow the tracks of the Napa Valley Wine Train. Just past Yountville, on the left side is a familiar "Welcome to Napa Valley" sign. This is a good morning shot with the vineyards in the background. Take a left at

the next road "Oakville Grade Road." Go about a mile, just as the road starts to climb, park your car on the left side. There is a small country road, nestled against the slope, dotted with oak trees. This will give you a beautiful view of the vineyards at dawn.

About a quarter of a mile further up Oakville Grade Rd, is Robert Mondavi's La Famiglia winery, known for its white wines. There's a small (one of the best) picnic area on a knoll at the winery. Step inside and buy a bottle of wine, spread your picnic lunch out, and enjoy the view. If you pick the right table, you can set up your camera alongside.

Returning to Hwy 29 at the start of Oakville Grade, is the famous Oakville Grocery with its old fashioned Coke Cola sign. This is where you want to pick up all your picnic supplies.

Back on the road, going north again, the next stop is the Robert Mondavi Winery. This is a "must" for your first winery visit. The architecture and art objects are outstanding. Mondavi is well known in the wine industry for his state of the art wine making. Be sure to start the tour at 10am. The barrel rooms are worthy of carrying in a tripod.

Next stop should be the Niebaum-Coppola Estate Vineyards at Rutherford. Francis Ford Coppola purchased the old Niebaum winery and restored it. Try the Rubicons wines. See the Coppola museum of his Oscar winning Hollywood productions, including the Tucker Car. Again, get here early to avoid the crowds.



*Niebaum-Coppola Estate Vineyards at Rutherford.*

Also, in Rutherford, visit Beaulieu and Louis Martini Wineries, which are known for their reds. And if you must eat at a restaurant, the best bet is to have lunch at the Rutherford Grill. Excellent food and wine choices here.

A few miles north, just short of St Helena, is the Rossi vineyards to the left. This is one of very few vineyards with the old white water tower. You can park alongside of the road without any problems. Beware of the traffic.

St Helena is a wonderful walking town. Early in the morning, stop by "The Bakery" for coffee and fresh baked pastry. This is where the "locals" hang out.



*"The Bakery" at St. Helena, where the locals hangout.*

Ask directions to the old Napa Valley Olive Mill on Oak Street. A touch of Italy in this quaint place, Italian olive oils, breads and cakes.

Just north of St Helena, is Beringer Winery. The old Rhine House is very photogenic. Tour the old tunnels carved out of volcanic stone by hand. Next to Beringer, is a pictur-

esque grove of Dutch Elms planted by the Beringer brothers in 1885, overhanging Hwy 29.

Another "must see" winery is Schramsberg. Over two miles of caves were carved out of volcanic rock. Today, these caves hold thousands of bottles of distinctive sparkling wines. Call first for tour times and directions. Ask permission to have a picnic in their 100 year old Olive grove. This grove sits on top of a hill, surrounded by vineyards and redwood trees. A treat you'll never forget.

Just "up the road" northward from Schramsberg is Sterling Vineyards. Perched on a hilltop, Sterling Vineyards has breathtaking views of Napa Valley. Visitors ascend to the winery via an aerial

sky tram. A self-guided tour takes you through the winery. A trip is a must to photograph the barrel rooms. Tall Redwood trees and beautiful views surround you as you enjoy a leisurely wine tasting on the terrace. Best time, is late afternoon.

The town of Calistoga is known as the "hot springs of the west." Calistoga was founded

*More Photographing Napa Valley on page 20*

## Photographing Napa Valley from page 19

in the 1860's as a spa and mineral bath resort. It hasn't changed. Even Robert Louis Stevenson enjoyed his honeymoon near by. Today, you can explore the town with its many gift shops, restaurants and drinking establishments. Many of the spas offer mud baths. Be adventurous and take a sailplane ride over the vineyards. Nearby is the famous Calistoga geyser.

Just on the East Side of Calistoga is the

Silverado Trail, returning to Napa. This is the road the locals prefer since there are no towns and few wineries along the way. Also very few tourists.

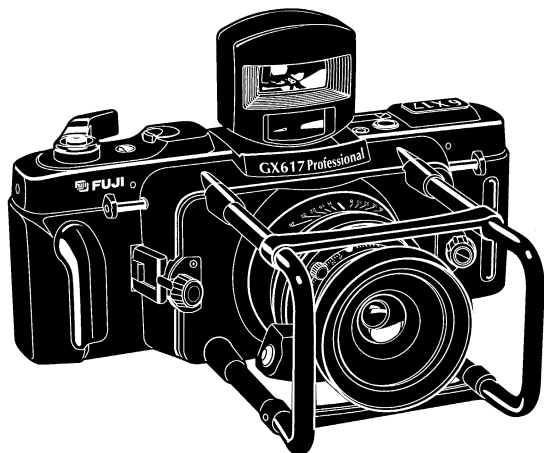
Clos Pegase is an "art museum" winery alongside the Silverado Trail. It's worth seeing. Jan Shrem has commissioned numerous art objects including "The Thumb," and "Man with a Bow Tie." Top the viewing off with some excellent wine tasting.

One winery you must visit along the Silverado Trail is Joseph Phelps Vineyards. Excellent wines and beautiful vineyard views. Best photography is early morning. And nearby is Mumm Napa Valley. Here you will enjoy breathtaking views of the Mayacamas Mountains from Mumm Napa Valley terrace. Mumm's photographic gallery houses the permanent collection of Ansel Adams, "The Story of a Winery."

By this time you should have used all the tools in your toolbox. ■

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## Low-Price, Highly Ambitious Digital Chip

By John Markoff

Suddenly the future of digital photography seems to be becoming much clearer. Recently Eastman Kodak announced a chip able to capture digital images with a resolution of 4,096 by 4,096 picture elements - or pixels - per square inch. That, by some measures, is about twice the resolution of 35-millimeter film. Today, a company founded by one of Silicon Valley's pioneer chip designers, will announce an image-sensing chip capable of the same resolution as the Kodak chip, but made using a technique that could be much less expensive.

Executives of the company, Foveon, said they had given a prototype camera based on their chip to a photographer in Los Angeles, Greg Gorman, who had used it to make a portrait of a cowboy. In that image, no pixels, or dots, were visible to the eye, even with the photograph blown up to a size of 8 feet by 4 feet.

Already, digital cameras being sold on the consumer market for less than \$1,000 are rivaling 35-millimeter film cameras. Digital images of the clarity achieved with Foveon chip could begin to challenge even the much more expensive film cameras made by companies like Hasselblad that are used by professional photographers for portraiture, advertising and fashion. "We're headed to flat-out replace the film camera," said Carver Mead, the founder of Foveon, which is based in Santa Clara, Calif. Mr. Mead, a pioneer of the chip industry, became a Silicon Valley legend in the 1970's by helping develop techniques that for the first time enabled chip engineers to create circuits containing tens of

thousands of transistors.

Industry analysts say that the new technologies could affect much more than still cameras. High-resolution images, if produced in quantities that made the new generation of image-sensing chips cost only several dollars apiece, could become a staple of cellular telephones and other hand-held devices and might bring the cost of a consumer video camera below \$100. And the contest is not only between film and digital sensors, but between two kinds of chip-making techniques. Foveon's planned announcement, coming on the heels of Kodak's, suggests a sharpening battle between the two competing manufacturing technologies at the heart of a billion-dollar market for digital photographic sensors.

The Foveon chip is based on a low-cost semiconductor industry technology known as Complementary Metal-Oxide Semiconductor, or CMOS (pronounced SEE-moss). The Kodak chip's sensor is based on a more expensive manufacturing technology known as Charged Coupled Device, or C.C.D. imaging.

C.C.D.'s now dominate the digital-imaging industry, but compared with CMOS devices, they require production and assembly of several chips and related components to combine the sensing and computing tasks that can be performed by a single CMOS chip. Both companies' achievements have startled industry experts because the new devices move far beyond the cur-

More Low-Priced Chips on page 21

## Low-Priced Chips from page 20

rent industry standards for CMOS and for C.C.D. cameras, which until now have been able to achieve resolutions of 6 million pixels a square inch.

The Foveon and Kodak sensors can pack 16.8 million pixels into a square inch. "If you asked someone if this was achievable in either technology two weeks ago, they would have said it was impossible," said Michael Berger, an industry analyst at Frost & Sullivan, a market research firm in San Antonio.

The Foveon announcement is seen as a personal triumph for Mr. Mead, 66, who is regarded by many executives and engineers as the father of the modern semiconductor industry. "Carver has tapped into something enormous," said Alexis Gerard, president of Future Image Inc., a digital-imaging research and consulting firm in San Mateo, Calif. "When digital imaging and the telecommunications infrastructure converge, they will enable a shift from a text-based communication model to an image-based model."

Throughout his career Mr. Mead has explored the idea of duplicating the human senses, including vision and hearing, by using silicon-based chip technologies. Several years ago, his earlier work led to the development of a smaller and more effective hearing aid now sold by Sonic Innovations of Salt Lake City.

Complex chips first became feasible in the 1970's after Mr. Mead, at the time a professor at the California Institute of Technology, teamed up with a Xerox computer scientist named Lynn Conway to invent a technique for placing thou-

sands of transistors on a chip - a technique known as Very Large Scale Integrated Circuit, or VLSI design. Today, CMOS-based manufacturing - which is used to carry out VLSI design - is employed by virtually all micro-processor and memory makers. As a result, it has

become extremely cost-efficient and can yield circuitry with more transistors and lower power requirements than most competing technologies.

Yet despite their promise, CMOS-based sensors have until now had just a tiny impact on the overall market for digital imaging because they have been unable to achieve the resolution and clarity of C.C.D. sensors. The global market in 1999 for C.C.D. sensors was \$959 million, compared with only \$14.2 million for CMOS sensors, according to Frost & Sullivan. But even before Foveon's latest achievement, CMOS was gaining ground. Not only have companies including Kodak and Polaroid begun to offer inexpensive, low-resolution CMOS-based cameras, but telecommunications giants like Nokia of Finland and NTT DoCoMo of Japan are planning to include inexpensive CMOS sensors in millions of their next-generation cellular phones.

Foveon's contribution has been to improve the quality of CMOS images by continuing to put more computer processing power behind the task of capturing the digital image. The new

16.8 million pixel device has seven active transistors for each pixel. The benefits include less interference, better focusing and more precise exposure times. "When the pixels get smarter," Mr. Mead said, "that translates into

better image quality."

Foveon's principal investor and the company's technol-

ogy partner is National Semiconductor, a big Silicon Valley chip maker. National Semiconductor's manufacturing plant in Santa Clara is capable of etching chip circuitry only 0.18 micron wide - a microscopic fineness that few other chip makers can equal. By contrast, most current low-cost CMOS sensors are made with circuitry of 0.35 or 0.5 microns, which allows for millions fewer transistors per chip. National Semiconductor executives said the company was planning to take the technology that Foveon had developed for the priciest reaches of the professional photography market and make it economical enough for some new consumer electronics. "National's interest is not in thousands of cameras a year but in hundreds of millions of cameras a year," said Brian L. Halla, the company's president and chief executive. "We could make the world's highest-resolution throwaway digital camera and sell it for the price of a similar Kodak system." Foveon officials said they would demonstrate the new 16.8 million pixel sensor today.

The sensor, which for now captures images in black and white, has almost

70 million transistors - or about two and a half times the number of transistors used by a Pentium III microprocessor chip for computers. Foveon says it expects the new sensor to be on the market within a year.

Currently, Foveon sells a high-end camera using an earlier version of its sensor that has a resolution of 2048 x 2048 pixels, or 4.19 million in all. That camera uses three separate sensors and a prism array to separate color information. But Mr. Halla said the company was also working on a technique that would permit a single chip to capture precise color information. Despite the advances now being made, Mr. Mead acknowledged that digital-image sensors are still a long way from matching the skills of the human eye. An eye is movable, which enables it to scan various parts of an image and then allow the brain to compose a single, larger image. The eye is also remarkably diverse: elements that have high resolution are clustered at the center of the field of vision, while sensing elements that function well at low light levels are around the periphery of the eye, giving human vision a great flexibility of range in varying light conditions that no artificial imaging system can yet match.

Mr. Mead said that because of fundamental size limits in the wavelengths of light, it is unlikely that future digital sensors will gain much additional resolution. Instead, shrinking semiconductor circuit sizes will make it possible for companies like Foveon to add more and more intelligence to their digital-imaging systems, perhaps simulating more of the image-enhancement functions of the human brain. ■

**"We could make the world's highest-resolution throwaway digital camera and sell it for the price of a similar Kodak system."**

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Photo courtesy of Gerald French

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## Panorama Gallery By Jeff Weisenberger



*Little White Church*



*Diamond Head*



*This 360 degree plus image was taken from the top of the Golden Gate Bridge.*

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### Down Under from page 4

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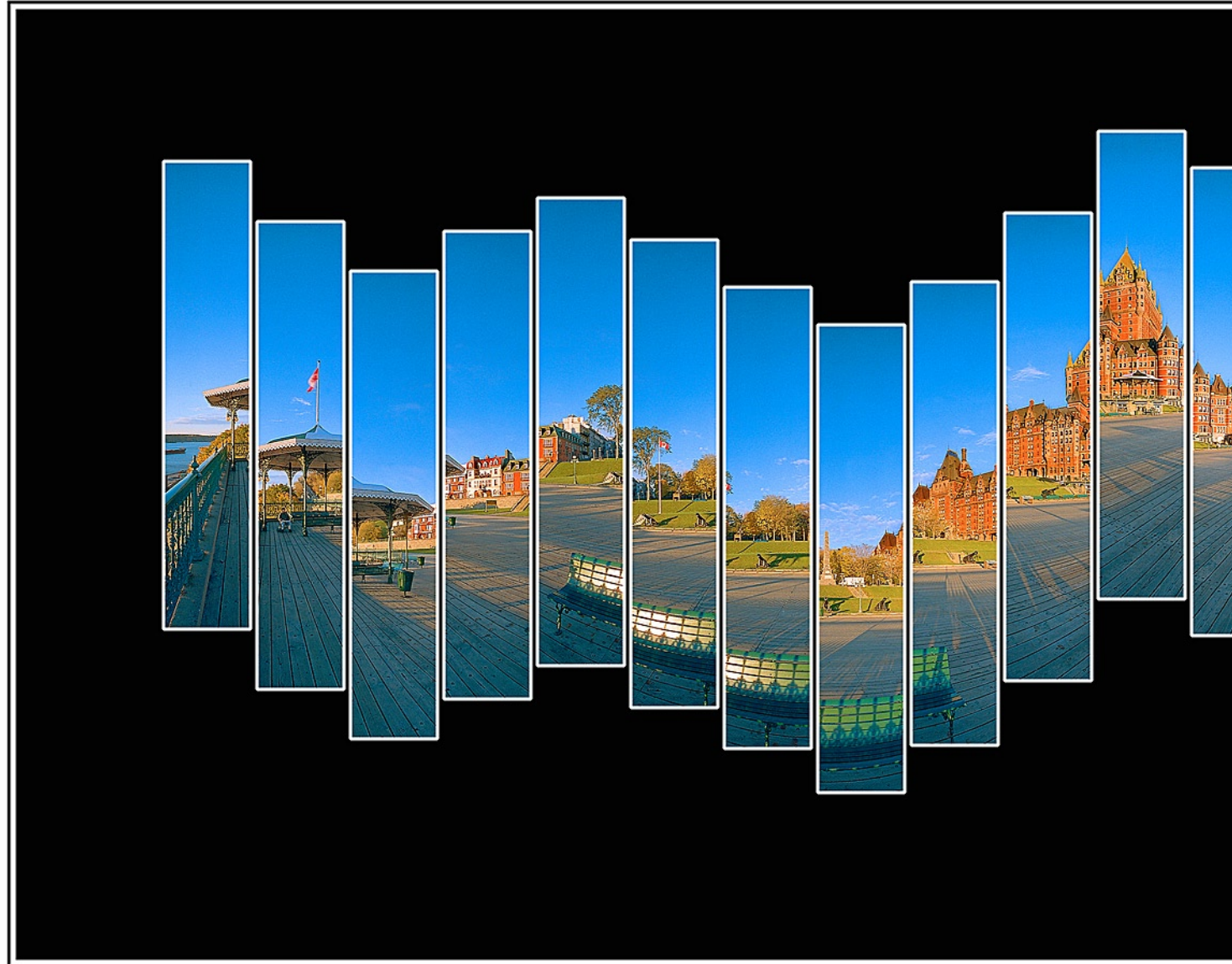
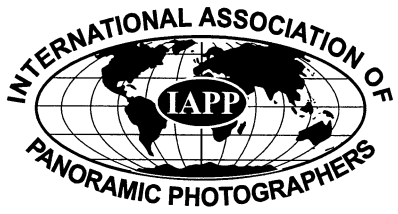
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Shane Van Boxtel spent hours working with Photoshop to create this stunning tiled panorama.