Stereo Landscape Dreams

Peace Jubilees

Bilateral Vision
A taste of the late '40s through the early '60s found in amateur stereo slides

by Mark Willke

Home Decor

Slides from the '50s taken in and around people's homes often include bits of interesting period decorating and furnishings that can be enjoyed in the background, even though that was not originally intended to be the main subject of the view. However, the two images presented here both appear to have been made to capture and preserve such decor, making it the main subject rather than a part of the background.

Our first view this time includes a wall covering that sure looks to my eyes like carpet. The original slide shows that this material does not cover the entire length of wall, but is a vertical strip about as wide as what is shown here, since a glimpse of wallpaper is visible on either side. In correcting the stereo window though, these stray edges have been cropped.

I would imagine that the bowl-shaped container at the bottom may have normally contained some plants or greenery, but the kittens are a nice touch for the photo! This Kodachrome image was mounted in an old-style Kodak cardboard mount (gray with red edges), and unfortunately is unlabeled.

Our next view, by a different but similarly unknown photographer, was mounted in an aluminum mask which was then sandwiched in glass. It was labeled only with the very appropriate title, "Pink Sensation". I suspect this slide was taken in the '60s, but don't really know any details about it. One guess is that perhaps this was the scene inside some sort of model home at a fair or home show. I suppose it could also have actually been the interior of the photographer's house or that of one of his acquaintances, but it almost appears too neat and tidy for that. If only there had been someone dressed entirely in pink lounging on the furniture (and perhaps a little less ceiling and a little more floor shown), this slide would have really been a beauty!

This column combines a love of stereo photography with a fondness for 1950s-era styling, design and decor by sharing amateur stereo slides shot in the "golden age" of the Stereo Realist—the late 1940s through the early 1960s. From clothing and hairstyles to home decor to modes of transportation, these frozen moments of time show what things were really like in the middle of the twentieth century. If you've found a classic '50s-era slide that you would like to share through this column, please send it to: Fifties Flavored Finds, 5610 SE 71st, Portland, OR 97206.

As space allows, we will select a couple of images to reproduce in each issue. This is not a contest—just a place to share and enjoy. Please limit your submission to a single slide. If the subject, date, location, photographer or other details are known, please send that along too, but we'll understand if it's not available. Please include return postage with your slide. Slides will be returned within 6 to 14 weeks, and while we'll treat your slide as carefully as our own, Stereo World and the NSA assume no responsibility for its safety.
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Front Cover:
A road north of Cambridge, Ontario is seen in a black and white infrared hyperstereo tri toned in Photoshop by Stan White for his article “IR Dreams: An approach to Stereo Card Landscapes”.

Back Cover:
Charles Pollock, “World’s Peace Jubilee, 1872.” The anvil chorus, played by Boston firemen. This is one of several views of these little known Boston music festivals reproduced in “The Peace Jubilees” by Del Phillips.
An NSA Officer Shuffle

NSA President Bill Davis announced in March that he was resigning from the office for personal reasons. He had become president at the Portland convention in July of 2004 after serving as vice president since 2001. Lawrence Kaufman, who became vice president in 2004, has agreed to move into the office of president. As this issue was going to press, the NSA Board announced that former President Mary Ann Sell had agreed to serve as vice president.

2005 Events and Tours

The convention insert in our previous issue containing “Special Events and Tour Information” was supposed to be a two page form describing all the features of the Monday, July 18 Dallas and Fort Worth area tour. It was placed on the back of the Hotel information form as a single page in error. For the full story of this very special and packed tour, please see the COMPLETE form inserted with this issue.

Welcome Back!

An encouraging number of people whose NSA memberships had lapsed have renewed in recent weeks thanks to an expanded mailing of reminder cards. Of course it’s best to avoid any gap in your Stereo World issues by responding to that renewal letter quickly. (Or, if you lost it, by finding it now before you finish this page!) If you did miss some issues, please remember that back issues must now be ordered separately from Don Gibbs, NSA, 23575 C.R. 77, Calhan, CO 80808, dgr719@earthlink.net. For a back issue list with feature contents, see www.stereoview.org/swbackissue.html.

Do You Dream in 3-D?

As with the question of color in dreams, the answer for many people seems to be a selective yes. In my own dreams, I’m conscious of color to whatever extent it’s important to the subject. The awareness of depth also seems to depend on just how close and important the details of a scene are, although it can be a more ephemeral impression than color. Stan White’s “IR Dreams: An approach to Stereo Card Landscapes” in this issue presents several very dream-like landscapes by manipulating infrared black and white hypers in Photoshop. The enhanced stereo and intense selective color are more striking than in any dream I’ve ever had, but the images of inviting paths and roads leading through intriguing landscapes are prime dream material.

Bob Mannle

When Bob Mannle died in March, 2005, the 3-D world lost one of its most dynamic and creative entrepreneurs. The obituary in this issue covers many of his accomplishments, but reproduced below is one example of the outstanding work he did for the NSA—the logo as a Single Image Stereogram that appeared on the 1995 Membership Directory, highlighting the international scope of the organization. We just wish space allowed reproducing the very professional color 3-D logos he created for four mid-’90s NSA conventions.

What Eyes Really See

“Bilateral Vision” by Dominic Michaelis is a more theoretical article than we usually publish, but offers an interesting look at one of the many ways in which human vision may be far more complex and flexible than the simple model of a pair of cameras feeding images to the brain. At the least, it should invite more study of the interactions involved in stereo vision that go beyond optics, perhaps aided by the author’s letter assemblies designed to illustrate his points when fused. (To North Americans, the author’s use of the term “wigwam” as a way to envision the letter A in his illustrations will seem imprecise when “tepee” actually matches the shape. At least one dictionary has tepee as a type of wigwam, and that usage may be more common in Europe.)

Edge of A Field” in particular invites speculation. Is that green sky and blanched foliage the result of some interaction of ozone depletion, pollution and climate change? Does the thicket behind the tree at right (perhaps once the ideal trysting place) offer now even more vital shade and refuge along the way home? Whatever you bring to them, these latest stereos from Stan White draw your attention in just as deeply as his earlier efforts.
Get Trapped at NSA 2005!

Experience Ron Labbe's computer generated 3-D delight A Better Mousetrap on a huge IMAX screen at the world's first Large Format 3-D Film Festival that opens the 2005 NSA convention July 13th in Irving, Texas.

Thrill to the menacing challenges of a children's board game bigger than a house in this reworked, high res new release, now with expanded running time and an earthshaking six-channel sound track by Jon Golden. Also showing are: Ocean Wonderland 3D, Bugs! (SW Vol. 29 No. 6), Space Station (SW Vol. 28 No. 5), NASCAR 3D (SW Vol. 30 No. 2), and Aliens of the Deep.

NSA 2005 Special Events & Tours
Check this issue's envelope for the COMPLETE Events and Tours form.
For more on NSA 2005, visit http://2005.nsa3d.org

Remember, NSA 2005 now starts on July 13th!
And to see all of the Large Format 3-D films you should plan on arriving by at least the evening of the 12th.
One of the more pleasant duties as President of the NSA is to thank all of you who have so graciously given of your time and money to the Association over the past year.

The 283 generous donors listed here have contributed financially to the organization. Total donations were $7,858.00, helping the NSA continue to be a valuable resource to the stereo community. It is heartwarming to see this level of interest and support from the membership. Thank you for your donations and your continued confidence in the Association.

In addition, my heartfelt thanks go out to the many volunteers among you who have contributed and continue to contribute your time and energy to the furtherance of NSA operations, activities and goals. This is truly an association of volunteers, from the Board of Directors to the Officers to the Stereo World staff and contributors, who continue to bring you this fine publication with such wonderful content year after year.

Not the least among these volunteers are the members of the convention committees, to whom any of us who have ever attended an NSA convention owe our gratitude and respect. These extravaganzas are the highlight of the 3-D year, featuring the largest stereo-related trade fair, many hours of the best stereo projection programs and more stereo-oriented educational workshops and social events than you’ll find anywhere else. Diane Rulien and her fine committee presented a beautiful convention in Portland. Eddie and Carol Bowers are setting up for a memorable event in Texas for July 2005 and veteran chair Bill Moll has stepped up to take charge of NSA 2006 in Miami. Eddie & Carol and Bill will need help, so if you can spare some time or talent, contact Eddie and Carol at eddie@vmresource.com or Bill Moll at WHMoll@aol.com. In this age of electronic communications, being geographically close to the convention site is no longer a requirement for all of the committee positions, so even if you don’t live in Texas or Florida, drop Eddie or Bill a line.

To all who have helped in any way, my sincere “Thank You!” for your kind support of the Association for the coming year. To those who haven’t yet contributed, please do consider it, whether an additional $10 or $20 with your renewal, or some of your time or talent. Your contribution will be greatly appreciated. We look forward to hearing from you.

Best regards,
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President
kaufman3d@earthlink.net

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STereo World Volume 30, Number 6

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One mark of a book worth spending time with is that it not only tells you things you didn’t know, but accomplishes that by revealing obscure and fascinating connections—like that between a noted 3-D film and video developer and one of the more unique labor organizing efforts ever initiated. The intriguing tidbit is revealed in Ray Zone’s new book *3-D Filmmakers: Conversations with Creators of Stereoscopic Motion Pictures* when an interview with Lenny Lipton turns to an 8mm 3-D film he made in the late 1970s.

*Uncle Bill and the Dredge Dwellers* was shot with an interlocked pair of Nizo cameras Lipton had assembled to demonstrate his ideas for optimum 3-D filming and projection. With time and funds for extensive research and experiments made possible by royalties from having written “Puff, the Magic Dragon”, he spent about a year shooting in and around the Sausalito houseboat of friend and Buddhist teacher “Uncle Bill”. Next to the houseboat was a dredge occupied by a “crazy bunch of hippies”. A sequence in the film is devoted to a ceremony on the dredge presided over by none other than Margo St. James, founder of the prostitutes’ rights movement in the U.S. and organizer of the group COYOTE (Call Off Your Old Tired Ethics) that evolved into an occupational health and safety organization for all sex workers.

The film was a step toward Lipton’s later innovative work in 3-D video technology through his Stereographics Corporation, discussed in the second half of the interview. Its rare public showings were at the San Francisco Art Institute and a film seminar. With luck, it may some day be be put on a DVD or shown at an NSA convention. Some of the book’s 21 interviews have appeared in *Stereo World*, including those with Arch Oboler, James Cameron, Vince Pace and Simon Wincer. Along with producers, screenwriters, directors, and cinematographers, IMAX 3-D Space camera creator Martin Mueller and astronaut/stereographer Brian Duffy are interviewed—about the very special requirements of shooting Large Format 3-D footage for *Space Station 3-D*, one of the films to be shown at NSA 2005 in Irving, Texas. Other LF 3-D films to be seen at the convention and also represented in the book are *Bugs!* (Cinematographer Sean Phillips) and *NASCAR 3D* (Director of Photography James Neilhouse). Needless to say, this would be an ideal book to read on the way to Texas.

Interviews with subjects who worked on one or more of the same films are presented sequentially. The interviews with producer/Director Steve Gibson and with Cinematographer Arnold Herr may at first seem to give more attention to their adult 3-D films like *The Playmates, Wildcat Women, Lollipop Girls* and *Disco Dolls* more attention than they merit. But these low budget productions of the 1970s and ‘80s were the first 35mm 3-D feature films in color anaglyph—many years ahead of *Spy Kids 3-D*. What’s more, the films were shot directly to anaglyph using mirror/prism filter units in front of standard movie cameras loaded with color film.

*3-D Filmmakers* is a sumptuous collection of historical, technical and personal details covering the least documented aspect of the movie industry. Even many of the more well financed projects involved custom made (sometimes on the spot) equipment and learn-as-you-go techniques. Questions and answers about technical matters and stereo aesthetics are interspersed with fascinating anecdotes about adventures in 3-D filming that won’t be found anywhere else. IMAX 3-D films get especially intense coverage through interviews with people at various levels of production for many of the more successful films. With the last four interviews in the book (James Cameron, Vince Pace, Ben Stassen and Steve Schklair), digital stereography and projection are discussed in increasing detail. The general optimism about the 21st century (Continued on page 37)
It is with great sadness that we read of the passing of Bob Mannle on Sunday, March 27, 2005. Bob was a person who really stood out in the world of commercial 3-D photography, and he had a major influence on our own business, Reel 3-D Enterprises.

Bob originally contacted us as a customer. At that time he was a commercial Audio Visual (AV) producer in the Denver area. In the days before computer PowerPoint presentations, multi-projector, sound-synched slide shows were in full swing as a staple for trade-show and corporate presentations of all descriptions. We don't know how Bob got his start in 3-D, but he was already a superbly accomplished photographer and multi-projector AV producer when he added the 3-D component to these skills. He felt that 3-D was the next "wow" factor that would set his shows apart from other AV producers, and bring in more business. And it apparently did, as he continued to produce multi-projector 3-D slide shows for many years.

By the time he first contacted us it was to purchase low-cost twin 35mm viewers to be able to send full-frame 35mm slide pairs to customers, and also for his customers to be able to send pairs with a viewer to THEIR customers. He had perfected his own stereo slide duping to a high degree, and sent us some impressive samples of his stereo dupes. They looked like virtual originals.

Next he told us he had perfected a way of duping any slide format to a View-Master Personal Reel compatible format. We were skeptical, as many people had tried this, but, until Bob, we had not known anyone to succeed in a commercially viable way. We sent Bob some sample stereo slides, and, as promised, he duped them into a View-Master Personal reel. This put him in a position to be able to offer short-run View-Master reels to customers. Custom factory-made reels took months to produce, and required a 1,000 reel minimum order. Over the years Bob ordered thousands of Personal Reel Mounts for the jobs he produced in this format to fulfill the many orders he received from his own clients.

Around 1994, at a time when we had barely just learned how to do e-mail on the Internet, Bob contacted us saying that he wanted to produce a "3-D Yellow Pages" site, and get anyone who was offering 3-D products and services to be listed on the site (for a fee, of course). He invited us to be his first customer, and to put our entire 3-D Catalog on www.3D-web.com.

We knew nothing about web sites, or how to create them. Bob said he would take care of everything, if we could supply him with photos and text for the products. Bob created our web site from scratch, and, over the course of a year we got about 113 of our catalog online.

By then Bob had become busier and busier with his own commercial 3-D work. He had discovered lenticular 3-D, and rapidly became one of the masters at doing computer conversion to create lenticular 3-D images. There was a lot of interaction between Bob and other significant creators in this field such as Steve Aubrey, David Burder and Ron Labbe.

After a few years making www.3D-web.com into a 3-D Yellow Pages for others, in 1999 Bob made it into a site for his own business New Vision Technology, to promote his 3-D Image services, and 3-D software products that he had created. (Reel 3-D moved to www.stereoscopy.com which has become the 3-D resource site for the Internet.)

When the NSA had it's 1993 convention in San Diego, Bob, who had moved to a location not far from there, took charge of all of the technical and equipment related details for that convention. For those of you who attended, this may have been the first convention where you saw more than just a TDC projector and a pair of...
After being stationed at a U.S. Naval base on Newfoundland in 1962 and photographing more of the island during subsequent visits, Chuck Holzner got into 3-D photography in 1999. In 2004 he returned to spend a month stereographing the island’s fishing villages, lighthouses, sea birds, historical sites, wildlife, geology, icebergs, shipwrecks, rivers, etc.

From the 600+ stereos he took on that visit, he selected 39 to publish in 3-D Newfoundland, a spiral bound book of full size stereo-views that can be flipped to insert in a standard Holmes scope or viewed with the included Loreo Lite viewer.

Unlike some other efforts at regional stereo albums, not one of these images could be called a dud. Every one reveals a bit of Newfoundland most of us have never seen with the exception of some fishing villages featured on calendars or in travel magazines, which Mr. Holzner’s skills at 3-D composition make far more interesting. His attention to alignment and window placement is impeccable. The color remains balanced and rich even in shots taken under gray skies along the rugged coast, especially when viewed in good light.

Using a format that should be seriously considered by others thinking about self published stereoview books, 3-D Newfoundland’s pages consist of four by seven inch Kodak Royal Paper with holes punched at the top for a large spiral binding. The images are printed at 300 ppi (Fuji Frontier color output), which surpasses any affordable offset ink printing in resolution and overall color quality. Above each left image is its title, and below each right image is the date and time of day it was taken, as well as the location’s GPS coordinates and an identification code. Information this detailed is a first for stereoviews, far surpassing the Latitude and Longitude numbers found on some Keystone views.

A paragraph describing each view is printed on a large sticker affixed to the back of the previous view—a labor intensive step that will probably limit the ultimate production runs of this particular format. (Printing directly on the backs of the prints could lead to bleed-through, and would need to be bold enough to overcome the Kodak logos all over the back surface.)

"Viking Ladies" No. NFM16-5 from 3-D Newfoundland. Dressed as Vikings who lived here 500 years before Columbus, these women greet visitors to the sod "Long House", recreated at L’aux Meadows.
© Charles F. Holzner

9 JUL 04 15:00 NDT 51:35.77 N 55:32.01 W NFM16-5
The Unknowns

Can You Identify the Subjects of These Views?
Neal Bullington

The Unknowns this time is from your Unknowns editor, because we have used up all of the material submitted by our members. This would be a good time for you to send us those unidentified views lurking at the back of your file cabinet.

This view is a gray card, perhaps produced by an amateur photographer. It shows a portly white-suited gentleman in the foreground and numerous workers in the background, surrounded on two sides by towering concrete walls. It certainly resembles a ship lock, perhaps at the construction of the Panama Canal. Can any of our viewers definitely identify the scene?

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Occasionally I will find a stereograph that will haunt me and a view of the construction of the Boston Coliseum was one of these. A visit to the Library of Congress with searches of microfilmed newspapers and a couple of old books provided the details.

There were actually two Peace Jubilees. The National Peace Jubilee was held in June, 1869, and the World Peace Jubilee was held in June, 1872. A Universal Peace Jubilee for 1875 was proposed but not held.

The National Peace Jubilee
The concept was the brainchild of Patrick Sarsfield Gilmore of Boston, a business man, music lover and greatest band leader of his day. Gilmore was the first to come up with the idea of large scale performances of popular music for the general public. John Philip Sousa said that he was inspired by Gilmore's example. He was a rabid Union supporter and made repeated recommendations about the value to morale of military bands and music to Lincoln and other officials. He was the band master of the 24th Mass. Infantry during the Civil War.

Under the pseudonym of Louis Lambert, Gilmore wrote the popular civil war song “When Johnny Comes Marching Home” among other musical works.

Gilmore's intent was to present a grand musical festival. He was soon to recognize that in order to accomplish his dream he needed to interest more than music lovers in the project. By involvement of Civil War veterans in the project and renaming it from the Grand National Reunion to the National...
Peace Jubilee he was able to complete his plan. It was advertised that the profits would be distributed to widows and orphans of the war, which made it even more popular.

The Jubilee was to be on a grand scale, one that would be almost impossible to duplicate today. It was seven months from the first public announcement to the end of the National Peace Jubilee, in which time the project was organized, financed, constructed and presented.

The logistics of the Jubilee were a challenge and individual aspects of it were administered through a volunteer committee. Committee members were some of the most influential people in Boston. It was proposed to build the coliseum on the Boston Common but a public outcry soon changed the location to nearby St. James Park, the area today known as Copley Square. The cost of the project was at first estimated at $50,000 dollars which wasn't even close to the final cost of $283,000. The coliseum alone cost $121,000.

The event opened June 15, 1869 and boasted attendance by the most distinguished in the country. President Grant attended but reluctantly. He was quoted as saying "I have no ear for music. I only know two tunes; one of them is Yankee Doodle and the other isn't." Our own Oliver Wendell Holmes was also in attendance. The chorus was made up of 20,000 children from across the country. There were thousands of choral groups that volunteered. Participants had to pay their own expenses. The band contained 1,000 instruments. Ole Bull, the great violinist also served as Concertmaster and Gilmore, called the "Jubileader" conducted most of the events. The events lasted five days and the coliseum was at its capacity of 50,000 for each performance. It was noted in one article "Nothing like it was ever seen on this continent; the view embraced 3 ½ acres of faces." Single admission for one performance was $5 for a reserved seat or $2 for general admission, an amount not easily parted with in those days. Papers reported capacity attendance at all events.

All Boston cleaned up for the Jubilee in anticipation of record breaking business. Hotels were packed. The Committee on Accommodations made arrangements with home owners to house visitors. Excursion trains from other cities brought thousands and tracks were laid nearly to the entrances. The city was decorated in holiday attire and it was reported that the streets in the business district were elbow to elbow with
visitors seeking to "lighten purses by purchase of Yankee notions or foreign fancies."

On the Festival grounds were organ grinders, peep shows, lemonade and root beer stands and a photographic establishment "where a perfect likeness can be taken and framed in ten minutes."

Also reported were "views microscopic and stereoscopic can be seen for a mere song."

But the real attraction must have been the Coliseum itself. Erected by Judah Sears & Sons, the building was constructed at no cost to

the project in exchange for the building materials salvaged after the building was torn down. The building was made of wood, reportedly "the finest specimens of timber as were ever got out in America." It measured 500 feet in length and 300 feet in width. At the center the roof was 100 feet high. It was assembled in three parts with the two outside portions erected first then the taller center trussed between. There were 19 trusses and the span was 150 feet. Two trusses were placed each day and it required 25 men, and six capstans to raise each one. Two million feet of lumber were used and nearly 27 tons of bolts and nails were needed. It required 240 carpenters and a gang of laborers who worked around the clock to construct the building.

Three entrances were available on each side. Two fifths of the seating area was reserved for the chorus and band. There were several balconies and under these were committee rooms and reception rooms. Drinking fountains and 48 toilets were inside. An eight
The World Peace Jubilee

The World Peace Jubilee was to be an even grander festival than its predecessor. It was billed as a celebration of the end of the Franco-Prussian War. Unfortunately the attendance was low, as the Franco-Prussian War was a mostly European affair. It opened June 17 and closed July 4th, 1872. The chorus contained 20,000 voices and an Orchestra of 2,000. A new organ was made for the Jubilee and it was said to be the largest and most

inch gas line was installed and 2400 gas lights were needed to light the building at night. The Decorating Committee spent over $11,000 for materials and the building was filled with color, flags, national emblems and a 13 foot high statue, “The Angel of Peace.” There were 36 support columns in the building and each one was decorated in recognition of a particular state in the union at that time.

The building was torn down in August and in October a final accounting was made to the committee. The remaining cash balance of $6,882 was given to Gilmore in recognition of his tireless efforts. The National Peace Jubilee was labeled a success and a new committee was formed to work on the World Peace Jubilee to be held in 1872.

Exterior of the north end of the 1872 Coliseum with Professor Allen's balloon aloft at right.
The south end of the 1872 Coliseum showing street vendors.

powerful organ ever built. It contained 1786 pipes, the tallest 43 feet high. It took 8 gas engine pumps to provide the air. A special feature of this Jubilee was the Anvil Chorus manned by 100 Boston firemen using sledge hammers to rhythmically beat out a Verdi chorus. Several anvils are pictured in stereographs and it is not easily recognized that these anvils were played as musical instruments, something akin to a xylophone. The “Big Drum” was 12 feet in diameter and 5 feet wide.

There were electrically fired cannon that were used at various times. Johann Strauss was a feature performer at the Jubilee.

Reception rooms and meeting rooms were appointed with wainscoting and trim in black walnut. Red and green carpet covered the floors. Mirrors and paintings on loan from a Boston business adorned the walls. The main hall was elaborately and colorfully decorated with flags and emblems; there was a huge mural behind the organ. Season tickets were available for $50 or single admission $5. Boston again cleaned up in preparation for visitors. Store fronts and windows were decorated and flags were everywhere. The grounds were filled with peddlers and merchants selling everything from photographs to drinks, which were being sold in spite of a prohibition at the time. There was a small Ferris Wheel nearby and on Dartmouth Street, the 100,000 cubic foot captive balloon Allen’s Castle in the Air could be found, where for $3 one could ascend to
1,000 feet and get a view of Boston. Local papers reported capacity attendance each day.

Due to the success of the National Peace Jubilee more of the famous and influential of the world attended the affair. A delegation of the Executive Committee made a personal visit to President Grant to make an invitation. The president refused their invitation saying that he had never heard so much noise in his life. Apparently music was not the president's forte. Grant did however make an appearance.

This Coliseum was the largest structure ever built in Boston and covered 4 1/2 acres. It was 550 feet long and 350 feet wide. At the highest point it was 120 feet. More than 3 million feet of lumber and 40 tons of nails and bolts were used. One of the most interesting stereoviews shows the first truss being raised into place on April 20, 1872. The truss was 12 feet thick, 130 feet high and 340 feet long. It contained 40,000 feet of lumber and cost $3,000. There were many difficulties in setting the truss upright and several days passed while carpenters supported and sheeted the first truss. On April 26 a storm passed through the area while the second truss was being raised and it was damaged. The use of trusses was abandoned in favor of a design using support posts.

The official program noted that each day was assigned to the music of a different country. Monday was...
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“American Day”, followed by “English Day”, “German Day”, “French Day” and “Austrian Day”. Military Bands played each day and Herr Johann Strauss conducted the Grand Orchestra several times.

Gilmore wrote a book about his experiences with the first Jubilee where he gave great detail. Other than newspaper articles, materials about the second Jubilee were not found. The World Peace Jubilee was a success but it is not known if it was a financial success and may have been a money loser, which probably ended the idea of another Jubilee in 1875.

The Photographers

A variety of stereoviews were produced of these events. In 1872 there were 133 photographers listed in Boston alone and 20 of these were on Washington Street. Any number of these photographers may have produced stereoviews under their own names or the name of a reseller. Many of these show the typical interior view which lacks the grand detail of the decorations. A huge fire nearly wiped out the center of Boston a few months after the Jubilee of 1872. Remarkably, the fire was halted at Washington Street without damage to those businesses on the odd number side of the street.

Joseph L. Bates, one of the first manufacturers of the stereoscope, advertised his business as a seller of Fancy Goods at 129 Washington Street. Fancy goods were described as “Rich Dress Combs, Paper Mache and Ornamental Goods, Parian Ware, Fancy Boxes, Writing Desks, Money Cases, Fans, Toys, Perfumery, Cases, Umbrellas, Stereoscopes and Views.” Rest assured that Bates’ establishment didn’t go unnoticed during the Jubilee. He advertised heavily “The largest and best assortment of Stereoscopes and views for sale in New England with new and choice views added daily.” Bates lived in Boston most of his life and one of his early business ventures in the 1840s was selling musical instruments. Oddly enough Bates seldom advertised the stereo part of his business even though he was one of the larger suppliers of stereoscopes until his death in March of 1886.

C.A. Beckford, 141 Essex Street, Salem, MA produced at least one view of the 1869 Coliseum.

F.C. Bowler, 27 Tremont Row, Boston, MA. Views of the 1869 Jubilee. Views are rare.

D.W. Butterfield at 472 Washington Street, Boston, MA produced a number of views of the 1872 Jubilee.


Charles Pollock at 132 Washington Street, Boston, MA produced a number of views with his imprint. Some may have only a “CP” imprint. Pollock was a major producer of stereoviews making at times over 4,000 views per day.

William G. Preston Boston, MA was the architect of the Coliseum and views will be found that were made by Pollock but marked by

Preston. These were mass produced and quite common.

London Stereoscopic Company produced many views of the 1872 Jubilee. Most had great detail and some were tinted.

Noyes, Holmes & Company of 117 Washington Street, Boston, MA advertised stereoscopes and views with over one hundred subjects available.

Edward F Smith at 109 Washington Street, Boston, MA produced a number of views, on a variety of mounts, of the 1869 Jubilee.

John P. Soule at 199 Washington Street, Boston, MA lived in Boston from 1859 to 1875 and produced a number of views of both Jubilees.

Simon Towle, Merrimack Street, Lowell, MA. Views of 1869 Jubilee. Views are rare.

Bob Mannle

(Continued from page 7)

Carousels for the projection sessions, Bob set up a literal wall of projectors and sound equipment, and really put a lot of time and energy into making it a technological multi-format memorable experience for all of us.

Directly and indirectly, Bob Mannle has had a great influence on all of us who enjoy this 3-D hobby. We are grateful to him for what he brought into our lives, and are sad that he is gone. He is deeply missed.

-Susan Pinsky & David Starkman

There is no question that in the world of 3D, Bob Mannle was a major force. He has always been an innovator in anything he’s done, and certainly stereoscopy has grown and flourished because of him. He was also generous—not only did he give his time and energy freely to stereoscopic organizations like the NSA, but he was extremely helpful to me personally. Always on the cutting edge of technology, Bob invited me to his home years ago to tutor me in the newly devised methods of 2-D to 3-D conversions. It was there that I really got to know him and his wife on a personal level, and to get a first hand knowledge of his warmth, creativity and expertise. I was in awe of how many things he was good at! He was a perfectionist, and I can only hope that a small bit of his talent rubbed off on me.

-Ron Labbe

It was at the NSA show in San Diego that I originally met Bob. Soon after that convention, Steve Aubrey and I were looking for help in meeting deadlines in our Topps Star Wars trading cards lenticular project. It was then that I recruited Bob into the lenticular world and taught him the 2-D to 3-D conversion process. We collaboratively developed software that we used to do conversions for many projects. It was a couple years later that we decided to sell our software online under the ProMagic name. We have been successfully working together ever since. Thanks to Bob’s collaboration in the development of the software, we have been able to change the world’s ability to do lenticular 3-D. The ProMagic software business will continue as an important part of Bob’s legacy.

-Steve Andersen
IR Dreams
An Approach to Stereo Card Landscapes
by Stan White

The conventional stereo camera is hardly the appropriate tool for landscapes. As we all know, ortho-stereography gives flat results in the middle and far distance. The usual way around this when using a stereo camera is to put something of interest in the foreground, but this doesn’t change the fact that anything further away than 25 to 30 feet is generally quite flat.

For opening up the far distance, extreme hyper-stereo works well and we have all seen the fascinating miniaturized scenes in which an extreme stereo base has been used. But to use this technique requires there be no foreground or middle-distance, otherwise there will be too much parallax and the usual viewing and window problems will prevail.

What brought me to all these considerations was the desire to make some dramatic scenics around where I live. Much of southern Ontario is soft, rolling country, pleasant but not very dramatically photogenic. I had in mind, for some time, to shoot infrared landscapes but earlier IR films were grainy with uncontrollable image flare. Stereo, to work well, is a medium of clear, sharp and relatively grainless images. Only over the last few years have there been IR films marketed that are somewhat slower, less grainy and with anti-halation backings. My choice has been Macophot IR820c, which I have found to be excellent for stereo imaging.

I use two 6x9 cm Kodak Medalist I1 (circa 1940s) rollfilm cameras on a bar triggered by a dual-cable release. The choice of cameras was determined by the medium-format, which is ideal for scanning into Photoshop from an Epson 4870 flatbed scanner. Also, for the Medalist lenses which are Heliar type five-element designed by Altman and extremely sharp. These cameras can be picked up inexpensively since they take only 620 rollfilm. It is a simple matter to rewind 120 film on to 620 spools. Glass infrared filters are ridiculously expensive these days and the stereo photographer needs two of them. Ilford SFX gelatin filters are an economical alternative.

The appearance of the cliched black and white infrared photograph is largely dark, usually black skies or water, and very close to white foliage, usually deciduous. The foliage usually forms one homogeneous mass, and even under harsh lighting, it is difficult if not impossible to separate one leaf, one tree, from another. If they could not be separated tonally then perhaps they might be separated by the depth that stereo gives? I think you’ll agree from the...
images herewith, that depth separation works.

I started with a stereo base of five and one-half inches, which was as close as the cameras would go but soon found that a stereo base of 20 inches gives the right amount of depth. This is for stereo...
card images in which a little extra parallax is not the problem it might be if you are blowing the images up on a screen to be viewed by projection. Though the cameras have normal focal length lenses, there is no problem in avoiding a too-close foreground. Simply tipping the camera up, or shooting from even the slightest rise will usually move the closest point to 20 or 30 feet away.

As a lifelong photographer, I had not realized until recently the limitations that the chemistry and physics of conventional photography had placed on us. To be let free amongst the infinitely variable pixels is a dream. These images, which began as black and white negatives, can be further removed from the cliche of IR by tinting, toning, coloring in Photoshop. I use duotones, tritones and quadtones. Matching two cameras to produce identical images in size, density and contrast was always a hassle. Controls in Photoshop make this a problem of the past. Nor does negative format result in loss of image area; I regularly stretch the 2x3 image to 3x3. Not a good practice for the portraitist, but in a landscape, nobody cares if a tree is 10 feet taller than it was in reality. In fact, I find vertical stretching tends to give the landscapes more elegance.

There are two programs in addition to Photoshop that I find indispensable: Noise Ninja, which samples the image and automatically removes noise, and Focus Magic, which also samples the image and automatically sharpens. Both do a better job than Photoshop's counterpart. You can override their settings, but so far, I have had no need to.

I was pleasantly surprised that this relatively small amount of increase in stereo base should have had so profound an effect on the contours of the land. Modest slopes are accentuated to dramatic effect. The trick to shooting in infrared is to place the tones dark against light, light against dark, as you would in chiaroscuro lighting. With experience, it is possible to predict the tones that the infrared sensitive film will produce though there are always surprises, for example: a wheat field reflects IR but only until it's cut—then the stubble no longer reflects. Usually, conifers don't reflect IR but sometimes they do. You never quite know, and that's the fun of it.
Bilateral Vision Fields Revealed by Stereoscopcy

by Dominic Michaelis

Vision is a very complex matter, which has been of interest to philosophers, scientists and artists of all times. Perspective was most difficult to explain, until lines of vision were used by Renaissance artists to construct perspective views, for example, Piero della Francesca's ideal city, or the drawings and paintings of Leonardo da Vinci. Gradually a clearer picture has evolved, showing increased levels of complexity as the structure of the human eye was studied, and, more recently, the links between eye and brain were investigated.

This short study concerns the observation that, when looking at any object on which both eyes are focusing, if you close or shield the left eye, the right eye appears to continue seeing the object in focus, but appears ready to scan to the right of the object in focus, showing less interest in what happens to the left of the object.

In this way, both eyes are ready to move to other objects left or right, the left eye covering the right side and the right eye covering the left side. To illustrate this point, an assembly of letters has been selected to form a motif that can be viewed directly, or can be seen stereoscopically, which appears to enhance the effect described. To best be able to visualize the assembly (Figure 1), it can be printed centrally on an A4 sheet of thick paper, preferably in landscape layout.

On focusing on to the top point of the raised central A, and closing or shielding the right eye, the pair of As topped by Ts on the right hand side seem to be more clearly apprehended than those on the left hand side which seem less distinct. The assembly should be held approximately 25 cm from the eyes.

Still keeping the eyes fixed on the top point of the central A, and keeping the right eye closed or shielded, by approaching the paper to approximately 15 cm of the eyes, the top left T disappears, having come to be aligned with the "blind spot", corresponding to the location of the departure from the retina of the optic nerve. Conversely, the right hand top T disappears when the left eye is closed.

Now, returning to the initial position, instead of focusing the eyes onto a point, align the eyes roughly with the middle of the assembly, but allow them to "relax" as though they were looking far beyond the image plane, [Free-view.] The As and Ts should first appear to double up, but then the eyes tend to make the doubles fit onto the nearest letter, so that a new assembly is formed, including

Fig. 1. The basic assembly of letters.
the initial one, where doubles fit, some over the existing assembly letters, but other doubles remaining on their own, all these being displaced by a constant distance or displacement. The resulting new assembly is longer than the initial one, and, instead of being displaced by a constant distance or into place, a sense of three dimensionality appears, with the As and the Ts, now consisting of 6 lower As, 3 middle As and 6 Ts. If the As can be thought of as wigwams, the Ts as tomahawks, and the white background as snow-covered ground, a 3D image springs into sight, to which we can give the title: "Wigwams and Tomahawks".

Keeping eyes focused on the top point of the middle base A, at the center of the assembly, and keeping the stereoscopic image, the left eye is closed or shielded. The original basic assembly appears with the right eye seeing the middle A and the letters around it and those to its left clearly, seemingly ignoring the A and the T to the right of the assembly, as though these were given no attention, so much so that they appear indistinct, the horizontal bar of the A seeming blurred. When the right eye is closed or shielded, the same takes place inversely. The following figures show the right eye (Figure 3) and left eye (Figure 4) views, with an imaginary vertical line defining the larger clear central areas and the "ignored" edges, which can be affected by the blind spot. The width of this line, when seen by both eyes, lies between the two edge clarity defining limits, rough-ly a block of 3 As and twoTs, from which has to be deducted the "displacement" thickness, leaving a total of a little over 2 As, at a distance of 25 cm, a width probably corresponding to the angular opening of rays between the fovea edges and the "nodal point" of the optic lens. Acute vision given by highly sensitive areas around the fovea is generally considered to fall within 4.5 degrees, a little over the angle of the 2 As subtended at 25 cm from each eye.

Taking horizontal sections through the eyes and the assembly, the visual processes involved become clearer.

The visual axes of both eyes meet at the center of the image plane, at the level of the base of the top A. They lead to the fovea, the most sensitive point in the retina. The optic axes of both eyes, their center line of symmetry, run 5° to the outside of the visual axes. The green lines are the sight lines from the outer edges of the assembly seen by the opposite side eye, whereas the dashed green line represent sight lines to the eyes on the same side. Referring to near central vision, the small angular displacement of the green lines due to the lens refraction is not shown.

Whereas the retinal image between the visual axis and the full green line can never be affected by the blind spot, the same is not true of the retinal image between the visual axis and the dashed green line.

The fall off of visual awareness on the outside of the assembly, on the same side of each eye, perceptible even without the exaggeration given to it by stereoscopic vision, indicates that a cross bilateral vision fields system might operate independently either as the main visual manner, in which the inner part of each eye is switched off, as happens apparently during a visual "saccade", or as a complementary system to the more conventional theory of each eye acting as a camera, to which would be added the information given by the cross bilateral vision fields. The eye-brain computer would then handle the two sets of information given by each eye.

In the cross bilateral vision fields theory, the right eye would cover the "field" between its visual axis and the full green line going to the leftmost point of the assembly, this green line able to go further "out" to take in a wider image, whereas the left eye would cover the "field" between its visual axis and the rightmost point of the assembly. The lines drawn as visual axes represent the sharpest images reaching the area closely surrounding the fovea, but they are not to be thought of as rigid, visual interest being expressed to both sides, but
more to the opposite side of the eye than to the same side.

Initially, both eyes are shown with their optic axes running parallel, at a nominal distance of 6.5 cm from one another, their visual axes running at 5° inwards, the latter reaching the vertical plane AB separated by 2.2 cm. The displacement required for one image to fit congruently over the other is 4.2 cm, so, for this to happen, the visual axes need to move outwards to fit the “displacement lines”, the eyes rotating slightly outwards to achieve this accommodation, but the visual axes still remaining convergent. It is a small adjustment that the eye-brain computer seems to wish to carry out, and when achieved, the stereoscopic image springs to life.

The image superposition is such that closing the left eye results in the disappearance of the right hand side edge A and T and the right upper A, the opposite taking place when the right eye is closed. Whilst attention is being focused on the top point of the central A, it is surprising how the alternate closing of one eye results in “awareness” being given to the opposite side of the assembly, leaving the outer A and T on the same side slightly blurred and apparently neglected, possibly because the information is picked up by the opposite eye. Only one part of the eye is actively used for this cross bilateral vision fields process, and the theory supporting it could be criticized for this, since the retina is fully lined with receptors.

The answer to this is that there is still overall awareness required, and that different laws apply to movement, light and darkness, global “camera” vision, equilibrium and many other functions where the whole retina is needed.

In the camera image of the eye, this fall off of interest at the edges would appear difficult to explain, except that, at a certain level and for a certain width only, the same side outer edge image interacts with the blind spot. In the camera image also, symmetry of attention could be expected whilst looking at a symmetrical assembly, which does not seem to be the case. There may be, other than the blind

(Continued on page 27)
Benslens Provides Instant In-Camera Anaglyphs

Some of the niftiest ideas in photography seem to come along just as technology is changing in a way that removes much of their potential market. A recent example may be the Benslens unit for taking direct 3-D anaglyphs with nearly any single 35mm or digital camera.

A half silvered mirror and a secondary mirror sealed inside the unit provide stereo separation, while blue and red filters encode the dual images seen by the camera in anaglyphic colors. An adjustable bracket allows a variety of cameras to be positioned behind the unit's opening and attached via the tripod socket, while a choice of three different size masks will match the camera's lens diameter to avoid stray reflections. (To allow for zooming and focusing, the camera lens shouldn't actually touch the back of the unit.)

While experiments with this concept have been attempted before for specific cameras (in one case with a standard Polaroid camera, in others for 3-D movies), this is the first product of its type we know of designed and marketed for nearly anyone to use with their regular camera. A convergence knob on the left side of the unit allows quick alignment of the red and blue images for minimum ghosting and control of the stereo window, although this often involves a compromise in anaglyphs. Using a digital camera with the unit on a tripod, the effect can be roughly previewed with anaglyphic glasses.

Within its clear limitations, the Benslens produces instantly viewable color anaglyphs of surprisingly good quality—several of the best examples being available for review on: www.benslens.com.au/index.htm.

Digital cameras provide the most flexibility using the lens, but even 1-hour lab prints from 35mm color negative film come out acceptably viewable in good light. Not too many years ago, before the availability of all the software for converting existing stereo pairs (or now even flat images) to anaglyphs, the Benslens would almost certainly have made a bigger splash.

Its big advantages of eliminating synchronization concerns and of quick 3-D images easily shared with the general public give the unit an edge in various amateur (and maybe even some commercial) applications. But a 3-D image that starts out life as an anaglyph can't (without considerable hassle) be resurrected as a pair or even converted to a monochrome anaglyph. The relative ease with which so many stereographers now digitally create anaglyphs from stereo pairs of various formats and fine tune the images for such impressive results could, for some, make the Benslens seem a step backward.

But for anyone not inclined to spend evenings in front of a computer and who simply wants to take and share 3-D pictures in a supremely accessible format, this may be an inexpensive, functional solution. For Stereo World's rather demanding tests of the Benslens, we used a heavy old SLR and 400 speed color negative film. A meter indicated a filter factor of about 2.5, which ended up giving negatives of reasonable density. Auto...
I eliminate them. If you’re not using a zoom lens, these can be cropped later in Photoshop or trimmed from a print. Less easily remedied is the unit’s blockage of the built in flash on small digital cameras. The flash must be taped over to avoid glare from the back of the unit, or an off camera flash used that clears the unit. A Vivitar flash perched atop the SLR easily cleared the unit.

A Vivitar flash perched atop the SLR easily cleared the Benslens and captured some good indoor action shots. Outdoor shots show fairly minimal ghosting in high contrast scenes, but areas of green foliage in shade can turn muddy.

This very deep test shot was chosen to see how the Benslens would cope with the combination of high and low contrast subjects, with direct sun in the foreground and overcast in the background, as well as with a bright red object near the center. With an image violating so many rules of a good anaglyph being at least this viewable, much better results can be expected from more carefully composed shots.

exposure and digital cameras should handle the compensation OK, but try some test shots first. For digital cameras, the instructions recommend setting the white balance for each shot.

Setting the convergence is easy, and almost too much fun. The knob changes the angle of the large secondary mirror, moving the red image. Whatever object you pick to converge the colors will appear at the surface of the anaglyph. The dramatic color differences make it instantly obvious just how far foreground objects will come through the window.

(and create a potential ghosting problem) if you’ve picked too deep a point for convergence. The opposite can of course be true for the background. This sort of in-camera anaglyph allows no adjustment of the window once the shutter is snapped, so playing with the convergence really is necessary to (usually) place the main subject near the window to minimize ghosting.

The instructions warn that borders of red only and blue only image will appear at the edges of the viewfinder or screen, and that you should zoom in slightly to minimize ghosting.

The Benslens is bulky and cumbersome to use, but delivers ready to view anaglyphic 3-D as promised. As long as you don’t expect it to produce images like the work of Boris Starosta or Simon Bell, this device could be quite practical for some purposes and well worth the investment and effort required. Test results ranged from only fair to well above snapshot level, hinting that more practice with the device could produce more consistent anaglyphs.

Benslens is available for $145.00 U.S. (includes shipping) from Stay Distributors, 1/31 Tamar Street, Ballina 2478, N.S.W Australia, or visit: www.benslens.com.au/index.htm. Payment can be made by PayPal, Electronic Transfer, Money order, or Check.

How many times have you heard someone say something like “3-D needs a really good film like Star Wars to catch on”. Well it looks like we will finally get our Star Wars. The big news from the movie industry’s annual ShoWest Convention was not only that James Cameron and Robert Rodriguez were behind regular digital theaters presenting 3-D films; but that George Lucas wants to convert all six “Star Wars” films to 3-D and re-release them one per year starting in 2007.

Real D acquires Stereo-Graphics Corporation

One month prior to ShoWest this acquisition seemed to open the door for James Cameron’s dream of digital 3-D theaters. Lenny Lipton announced that his company Stereo-Graphics was under new ownership and that “I will be active with the company as the Chief Technology Officer”.

Real D’s principals are no strangers to 3-D. Michael V. Lewis, Co-Founder & Chairman was CEO of L-Squared, producer of the incredible 3-D dinosaur footage for T-Rex: Back to the Cretaceous and Siegfried and Roy: The Magic Box. Real D co-founder & CEO Joshua Greer’s passion for 3-D was ignit-
ed while working with James Cameron on *Ghosts of the Abyss.* Greer designed the first all-digital 3-D projection system for Walden Media. Based on the audience’s enthusiastic response to the film, he decided to focus on stereoscopic digital projection systems, ultimately leading to the creation of Real D. Unlike traditional 3-D projection technology requiring two projectors and sometimes shuttering glasses and extra staff, the Real D solution allows a single digital projector to play high quality stereoscopic content while remaining fully compatible with existing and future 2-D digital formats.

### A Digital 3-D Chain

Meanwhile, the Mann Theater chain has selected Real D as the exclusive delivery system for digital 3-D entertainment. Mann Theaters’ world-famous Grauman’s Chinese Complex in Hollywood will host the Real D flagship theater, which will open to the public in May 2005.

Spurred by recent interest from content creators coupled with continued enthusiasm from consumers for 3-D entertainment, Mann Theaters is the first chain to embrace the exhibition of digital 3-D. In addition to being able to play upcoming 3-D content from filmmakers such as James Cameron (*Aliens of the Deep*), Robert Zemeckis (*Polar Express*), and Robert Rodriguez (*Spy Kids; Shark Boy & Lava Girl*), the Real D solution allows Mann Theaters to realize additional revenue from digital presentations such as live concerts and sporting events. The chain will announce plans for the rollout of additional Real D theaters later this year.

### Some Upcoming 3-D Films

- **Wild Safari 3D** A South American Adventure” large format (LF) film from nWave Pictures (May 2005)
- **The Adventures of Shark Boy and Lava Girl** (June 10th) the latest from Robert Rodriguez (*Spy Kids*)
- **Tom Hanks Presents Magnificent Desolation** September IMAX release
- **Denizens of the Deep** (2006 - working title) IMAX (sequel to *Into the Deep*)
- **Everything** (2006) LF film from the National Film Board of Canada
- **Dinosaurs From Patagonia 3D** (December 2006) LF film from Sky High Entertainment Canada
- **Super Bowl to the Max** (2007) NFL Films
- **Battle Angel** due 2007 from James Cameron
- **Bugs! 2** (2007) LF film
- **Man Eating Sharks** (2007) LF film
- **Wings Over the Wilderness** LF film

### Upcoming Stereo Conventions

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<tr>
<td><strong>31st Annual NSA Convention:</strong></td>
<td>Wednesday July 13, 2005 - Monday July 18, 2005, Dallas/Ft. Worth area (Irving, Texas)</td>
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<td><strong>32nd Annual NSA Convention:</strong></td>
<td>July 2006, Miami, Florida.</td>
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<td><strong>33rd Annual NSA Convention:</strong></td>
<td>Tuesday July 10, 2007 - Sunday July 15, 2007 (Possible additional days on the 16th and 17th for field trips), Boise, Idaho; Joint ISU/NSA meeting, Website: <a href="http://2007.nsa3d.org/">http://2007.nsa3d.org/</a></td>
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<tr>
<td><strong>Stereocon Society (UK)</strong></td>
<td><a href="http://www.Stereocon">www.Stereocon</a> Society.org.uk</td>
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<tr>
<td><strong>2005 Annual Convention:</strong></td>
<td>This year the Stereocon Society Convention will be combined with the 15th ISU Congress in Eastbourne, UK; September 14th - 19th, 2005 (see above).</td>
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<tr>
<td><strong>SPIE (International Society for Optical Engineering)</strong></td>
<td><a href="http://www.stereoscopic.org">www.stereoscopic.org</a></td>
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| **Stereoscopic Displays and Applications Conference and Demo Session:** | Usually the 4th week in January in the San Jose, California area. See www.stereoscopic.org.

### IMAX 3D Spreads in China

IMAX Corp. has reached a deal to install two more of its giant-screen theaters in China, one in an air museum and another in a science center. IMAX already has agreements to install a number of its theaters in China and has also recently signed deals to open theaters in Russia, India, Pakistan and the Middle East. The new IMAX outlets will be located in the China Aviation Administration museum in Beijing and the Guangdong City Science Center. Both locations will be capable of showing IMAX and IMAX 3D films. Both locations are scheduled to open in 2007. As of September, there were more than 235 IMAX theaters operating in 35 countries.
Round The World 3-D Project

When flat photographers think they've found an easy new stereo gimmick, their sudden enthusiasm can sometimes be impressive. The latest example comes from members of Britain's Royal Photographic Society Forum, who have launched the first "Round the World 3D Camera Project". A photographic tour of the world is to be made by two pairs of disposable cameras mounted on simple frames that include a note reminding novice stereographers to advance both cameras after each shot. Synchronization is left to the fingers and reflexes of the participants.

Member photographers from around the world in thirteen tries will each have three shots in which to capture a moment in time and represent their geographical part of the world. The photographers are also asked to take a photo of the 3-D rig in use or on location to help document the project. On completion of the RTW tour the films will be developed and the resulting prints will be exhibited. (The horizontal prints produced by the cameras will be trimmed to a square format for mounting on standard view cards.)

The paired disposable camera rig named "William" (after William Fox Talbot) now touring the world as part of the Round The World 3D Project. Few of its users will likely be aware that Talbot probably took the first ever stereo photos at the request of Charles Wheatstone. (SW Vol. 18 No. 2.)

PSA's Dimensions Three Returns

The stereo division of the Photographic Society of America (PSA) has its own newsletter, Dimensions Three, edited for many years by Stan White and more recently by George Themelis. It has been a couple of years since an issue was published, while PSA has been searching for a new editor. Dimensions Three was published three times a year: January, May and September. The preferred distribution of D3 is electronic, in the form of a PDF file. The back issues are available online: http://home.comcast.net/~psa/.

Compact 3-D Video Rig

Professional videographers who are serious about 3-D need no longer build or buy their own camera rigs. 21st Century 3D in New York now offers for rent the 3DVX stereoscopic 3D motion picture camera. The rig consists of two Panasonic DVX100A cameras, linked and electronically synchronized for frame accurate stereoscopic recording. The high-speed shutters are also locked allowing stereographers to stop fast action with fully synchronized electronic shutter speeds up to 1/1000th of a second. A custom designed titanium and aluminum synchronized focus and zoom drive has been added, allowing stereoscopic zooming and single control operation of focus.

The 6 CCD progressive scan, 8.5 lb, digital video camera can be held in the palm of the hand and the stereoscopic viewfinder allows the operator to view shots in 3-D as they are being photographed. Using two entirely discrete channels, the 3DVX records at 30 frames per second per eye with 720x480 resolution for each eye view simultaneously. Dual on board left and right recorders make it an entirely self-contained, battery powered unit.

For more information, visit www.21stcentury3d.com.
spot, subtle differences between the inner and outer sides of each eye.

Referring to the stereoscopic image of the initial letter assembly, (Figure 2), if, whilst looking at this, focusing on the top of the central A, you bring up the index edge of the palm of your hand against your nose to prevent any cross vision lines from operating, you will notice that the outer As and Ts on both sides disappear, which implies that they are, surprisingly, not seen by either eye on its own side, whilst, as you remove your hand, the full image reappears, the left outer A and Ts seen by the right eye, and the right outer As and Ts seen by the left eye, the incomplete image given by one sided vision completed by cross bilateral vision from the opposite side.

This phenomenon can be seen, less dramatically, in normal vision. If you use the same procedure with the initial letter assembly (Figure 1), you will see that, if focusing on the center of the image, with the palm in position, the outer As and Ts are slightly blurred, but appear much crisper as you remove your palm. This seems to apply to general vision, so that if you block cross bilateral vision, the image given by one eye only seems incomplete, needing confirmation by the opposite eye's vision to complete it and give it its full impact.

It follows that each eye is performing two distinct roles at the same time. It first sees its own side of the visual axis, the field between the visual axis and the dotted green line as illustrated in Figure 5, where the image reaches areas of the retina affected by the blind spot and where visual perception seems less acute.

The eye can be imagined as formed of two hemispheres bisected vertically by the visual axis, the inner “retinal hemisphere” being the weaker, whilst the outer “retinal hemisphere” is the stronger.

The eye then sees the other side of the visual axis, the field between the visual axis and the full green line of Figure 5, the “stronger field”, where it superimposes itself on the weaker field seen by the opposite eye, seemingly reinforcing that weaker image by its fuller perception of the image projected onto the “stronger retinal hemisphere”.

So, the “Wigwam and Tomato-hawk” example is used to illustrate cross bilateral vision fields, either independent, or possibly supplementary to the more conventional “camera” vision.

Other examples can be seen in everyday life. If you look at a box on edge, with one apex facing you, on closing left and right eyes alternately, you will notice that the left eye “sees” the right side, and the right eye “sees” the left. The same can be seen with vertical cylinders and most geometric solids. You can play the game with your own thumb and index each pointing upwards at roughly 45° from the vertical, focusing at the middle of the void between them. It can be seen in landscapes where you focus on a distant feature, a mast or a tree, say, and notice the shift of interest to opposite sides as you close eyes alternately whilst still focusing on the feature.

Also, when looking someone “straight” in the eyes, you may find that your left eye is looking diagonally at his or her left eye, but also is less aware of the right eye, whilst your right eye is looking at the opposite right eye, less aware of the opposite left eye, making the word “straight” inappropriate!

If you draw two eyes with their pupils 6.5 cm apart, with the person’s irises shown in different colors, his or her right eye iris shown green, whilst the left eye iris is shown blue, (or print Figure 7), on a sheet of paper placed at approx. 25 cm distance, and if you focus centrally between the two eyes, by closing eyes alternately, you will notice that your left eye sees the opposite side person’s left eye, drawn on the right of the paper shown blue in Figure 7, and vice versa. To get the left eye to see the opposite right eye shown green, you have to let both your own eyes relax as though looking to infinity. Then, in fact, you are looking the other pair of eyes “straight”, as alternate eye closing shows, but this is accompanied by double vision, a second set of eyes appearing between the outer eyes. As you approach the image right up to your own eyes, the “secondary” irises merge centrally, whilst alternate eye closing confirms that your right eye sees the blue eye, the left the green. With considerable difficulty and attention, you are now looking someone “straight” in the eyes, which you would probably never do except as an exercise.

You can “force” your right eye to look at the opposite left eye, blue, and your left eye to look at the opposite right eye, green, keeping the position with alternate eye closure, but you will notice that this demands a certain effort, and that whereas looking “diagonally” from right eye to right eye or left eye to left eye is easy and fast, the other mode demands initial concentration to set the mode.

A QED illustration of these processes is given by the well known “floating finger” optical illusion, in which you bring your two index finger nails together, first focusing on their junction, then letting the eyes relax. The result is most interesting, because you then see four fingers, two “external” substantial fingers, and two nearly transparent fingers, which form the “floating finger” only where they are superimposed. Alternate eye closure shows that the “external” substantial fingers are perceived by bilateral cross vision, the images, due to slight eye rotation, having “slipped” on the retinas giving the impression that the touching fingers are separated, whilst the transparent fingers are those in front of each eye, the “camera oscura” images, so weak as to appear ethereal, and needing superimposition to acquire any substance, confirming that the eye-brain computer seems to give these a secondary role.

Each eye is seeing two images, one “frontal” and one “bilateral”. The “floating finger” effect is seen more (Continued on page 33)
Getting Started in Digital 3-D: One User’s Report

by David Starkman

Recently I got started in stereo digital 3-D photography with a pair of Sony DSC P43 4.1 megapixel cameras that have been electrically synchronized for both on/off and shutter firing functions. They are neatly mounted on a very accurate aluminum frame, one camera right side up, and one upside down. With slotted tripod screw channels this allows for three easy-to-set lens bases as follows: Close: 54mm (2 1/8"), (cameras closest together), Medium: 70mm (2.75") (one camera moved to outer position), Distant: 85mm (3.35") (both cameras moved to outer positions).

This rig has been created by Jacob van Ekeren in Holland, who has been well known in recent years for the excellent custom 3-D slide viewers he has been making. His viewers, and his new digital camera 3-D rigs (there are several different camera models available) are marketed in the USA by 3D Concepts (www.make3dimages.com). Outside the USA they may be purchased by contacting Jacob directly at jzeker@xs4.nl.

For many years I’ve watched my partner, Susan Pinsky, enjoy the benefits of 2-D digital camera photography, but have personally been holding out on doing more than just dabble in digital photography until I could make or find a 3-D digital rig that would satisfy my basic requirements. (More on those basic requirements later). I’m pleased to say that with the acquisition of this rig my search has ended (at least for now).

How did I find these cameras? Interested in learning more about digital 3-D photography, I was pleased to find that at the NSA convention last July in Portland there was a Digital 3-D workshop. I attended this workshop, which ended up lasting about 3 hours, and learned a lot about how other people have been doing digital 3-D.

**Synch**

After a lot of talk about the basic requirements needed, the bottom line of the workshop was that the best system (they claimed) is a rig that uses two Sony digital cameras (Such as the DSC-V1 or DSC-V3 models) that have LANC output connectors, and a LANC/Shepherd “box” which basically synchronizes turning the cameras on, firing the shutters, and synchronized zoom. An LCD display indicates the number of milliseconds that the shutters will fire within each other on the two cameras. However, the box does not actually synchronize the cameras, but by synchronizing turning the cameras on at the same time, the shutter firing will be in close synch, and the display will indicate the degree of synch. If it is not close enough, one powers the cameras off and on again for better synch. The purpose of this article is not to explain this system, as full details are available at the following web site: http://pages.sbcglobal.net/rcrock/lanchej/.

Because the Sony cameras that have the LANC jacks are “higher end” cameras one would assume that these would be the most professional and highest quality currently available for digital 3-D. However, the LANC controller does not assure or control synch, so the higher end cameras offered by van Ekeren offer an attractive alternative. The main advantage of the LANC controller system is that of not requiring any modification of the cameras themselves, and it allows zooming in synch. Instructions note that shutter synch can drift, and zoom should be reset after a number of repetitions. For the Do-It-Yourself (DIY) fans, this possibly offers an attractive combination. (More on DIY later).

The LANC-connected cameras did not satisfy a couple of my personal basic requirements (at least for my first digital 3-D camera rig). These are: 1) simplicity, and 2) compactness (which includes lightweight). (See the cover of Stereo World Vol. 30 No. 4 to see exactly the sort of rig that I did not want!). However, I learned a lot from this workshop, which helped me decide to order the Sony P43 rig, which was on display as a prototype at the NSA convention in Portland. I learned that one of the key features in synching two digital cameras is to have them power on simultaneously. The second feature is to fire simultaneously. Some test photos of moving subjects, taken with the prototypes, convinced me that the P43 rig would satisfy me.

By direct wiring, the Sony P43 3D rig is connected to achieve just these two features only—without the use of a separate electronic box. (The only visible modification is the addition of synch wires to the cameras). My experience so far is that the synch has been so good that having a display to tell you how far out of synch the cameras are is simply not necessary.

Without a separate synch box, and with a compact aluminum frame to hold the two cameras, this rig also satisfied my requirement of compactness and lightness. The P43 cameras have turned out to be quite simple to use. By use of a wide multi-pattern sampling area for focus and exposure, I have found that the image matching of two otherwise completely separate cameras is simply excellent when the cameras are left in their full auto modes (in keeping with the simplicity requirement). The basic P43 cameras themselves are relatively low cost, so the final rig, while a bit more than double the price of the cameras alone, is
still reasonable, and well worth the cost (in my opinion) of the electrical and mechanical work done to create the completed camera assembly.

Flash

My experience with flash synch on the P43 rig is that most of the time I leave the cameras on full auto, with the flashes on auto on both cameras. They seem to fire in synch most of the time. My past 3-D experience would tell me that this is not a good idea, and that flashes from two different positions at the same time would be a problem. In reality, most of the time it seems to work very well. Sometimes there are slightly odd shadows, and sometimes, even with pictures of the same subject and composition, taken within seconds of each other, one will be perfect and one will be a little overexposed. I don’t know if this is because most of the time there is a very tiny millisecond delay difference between the Left and Right exposures, and that possibly the overexposed ones occur when the Left and Right happen to fire at the exact same millisecond. Test shots seem to indicate that leaving both cameras on Auto is better than turning one camera’s flash off.

I won’t explain all of the features of the Sony P43 camera, as these can be looked up doing a Google search on that camera model. For more details on all of the 3-D models available contact 3D Concepts (USA) or Jacob van Ekeren (for the rest of the world). (Note - for those of you who find the P43 too basic, or want more Megapixels, Jacob offers several other models based on more sophisticated, and more expensive, cameras, the Sony P100 and P150. These have the optical Zoom feature coupled, as well as the on/off and shutter firing. Check out the Dutch website http://home.hetnet.nl/-wolkers1960/3digtal/index.html for more details. If you paste the URL into the Alta Vista translations page, it will be translated into English—almost.)

Once I got the cameras I found that, as a beginner in this digital world, there were a number of things that I had to learn just to get started. In this I was helped greatly by a series of articles by Paul Richard that appeared in the last several issues of the Stereoscopic Society Journal of 3-D Imaging (available from http://www.stereoscopic.org.uk/)

First, Paul explains how he built a rig that mechanically synchs two simple digital cameras. I’ve seen Paul’s rigs at the Stereoscopic Society’s annual convention, and they are quite amazing. They are also quite beyond my mechanical skills as a DIY constructor. I don’t really recommend this method, however, if you want to take on the job of mechanically synchronizing two digital cameras, Issue Number 163 of the Stereoscopic Society Journal of 3-D Imaging covers this in detail. Four consecutive issues from Numbers 162 to 165 (Autumn 2003 to Summer 2004) contain a complete series of articles by Mr. Richard for the DIY digital 3-D enthusiast.

Sorting Files

Paul’s writings in issue Number 164, pages 27 to 30, dealt with the subject of what to do with the separate right and left digital image files, once you have them. At first I thought that some of his suggestions seemed a little bit complicated, but I could not come up with something simpler, so I have used his methods, and am pleased enough to want to pass along the basic ideas.

First, within the My Documents/My Pictures folder of your computer (PC is assumed—if you have a Mac, you can modify this to whatever folder you normally put pictures in) create a subfolder named “Stereo Incoming”. Within that folder make another subfolder named “Template”. Within the template folder create 4 folders named: _Right, _Left, Merged, and Edited. These will all be used later, when you have taken right and left digital stereo photos, and need a place to logically store the files.

When you have shot pictures with the digital 3-D rig, and are ready to upload them, note that you still have separate right and left memory cards for the image files.

Before uploading the image files, you first have to create folders to put the files into. This is where Paul’s article proved invaluable in getting organized in this regard. Without organization and the use of folders it becomes very difficult to keep track of where your images are!

Paul suggested using the date, but I prefer a combination of description and date for each folder. For this example I’ll pretend this is a group of family pictures and will use the name Family1204. (for Family photos shot in 12/2004—you get the idea!).

First I create the Family1204 subfolder in the My Documents/My Pictures/Stereo Incoming folder. Then I go to the Template folder that is in the same Stereo Incoming folder and highlight and copy the 4 file names that have been left there. Then I go back to the Family1204 folder and paste the 4 folder names into it. Then it’s back to the name of the Family1204 folder and high-
light and copy the name Family12004 and then open the Family12004 where there are now the 4 folders labeled _Right, _Left, _Merged, and _Edited. By highlighting each name until it is white in its name box (it takes 3 clicks on each name) I then paste the filename in front of each of the 4 template names, so I end up with 4 subfolders named as follows: Family12004_Right, Family12004_Left, Family12004_Merged, and Family12004_Edited.

As I previously stated, this may seem a bit complicated, but once you've done it a few times it is actually quite quick and easy to do, and helps keep the files organized for 3-D work.

Once these folders have been created, you are ready to upload the images from the memory cards. I highly recommend getting a low-cost memory card reader, rather than uploading through the camera connecting cables. It just seems a lot simpler. The latest model computers all seem to have multi-format card readers built-in, too!

I start with the right memory card, as these images are right side up, and it is easier to view the thumbnails and decide on selecting image groups if there are more than one folder name group of images on a single card. For this example, I will upload all the images on the right card to Family12004_Right.

Once this is done I repeat the process and upload all of the images from the left card to Family12004_Left.

One can choose to use the Copy or Move features. I normally move the files, as this removes them from the card, leaving it emptied for putting back into the camera for more shooting. Now I have the sets of right and left image files stored in their respective folders.

**StereoPhoto Maker**

The next step is what to do with the files once you have stored them!

To combine the Left and Right files I open one of the wonderful programs that have been created for the manipulation of digital 3-D images. Many of these are available as free downloads, and can be found at [http://www.stereoscopy.com/downloads/index.html](http://www.stereoscopy.com/downloads/index.html).

I have to admit that I have several of these programs, as each has different features that I like. One of the best of the free PC programs is StereoPhoto Maker (SPM), available at [http://stereo.ipn.org/eng/](http://stereo.ipn.org/eng/) and described on the web site as follows:

StereoPhoto Maker (SPM) (be sure to get the latest Version!—2.22 as of this writing) is one of the best freeware Stereo-Photo Editing programs around and functions both as a versatile stereo image editor and stereo image viewer. It is supportive and friendly to most stereo viewing methods (Freeviewing [Parallel-eyed or Cross-eyed], Anaglyphic [color anaglyphs or grayscale anaglyphs], Liquid Crystal Shutter Glasses [Interlacing or Page Flipping]), Position, Angle, Size and Darkness of the left-right image can be adjusted very easily. Other functions: Zoom In/Out (operated with mouse wheel), Left-Right Image swap, Trimming, Resize, Print etc... Requires Windows™ 98SE, 2000, Me or XP. Both Japanese and German Versions are also available.

**Most important**, thanks to the responsiveness of author Masaji Suto, the latest version of SPM supports *inverting* the Left image as you import the separate Right and Left image files into the program. Since the Left camera is mounted upside down in this configuration, this simplifies the alignment process considerably!

All of the other programs I use are available from the Stereoscopy.com download page, except for Pokescope Pro, which is available at [www.pokescope.com](http://www.pokescope.com) (and is not free).

I will not do a step-by-step tutorial on using any of the 3-D image editing programs. Each one has it's own help files and tutorials. The advantage of these programs is the...
way that they easily let you open your left and right image files and then align them, set the stereo window (the convergence point of the images), crop them as a pair, and do various manipulations (such as adjust brightness, rotate non-level images, match image size, fix height errors, etc.—only if needed of course!).

Once you have cropped and adjusted the stereo pair to your liking, these programs offer a choice of how you want to save them, such as anaglyphs or side-by-side pairs. Another option is to save the separate right and left image files, and this is where the "_Merged" folder is used. For example, let's say that I have just finished cropping and aligning the first Test Picture. In StereoPhoto Maker, if I choose the Save Left/Right Image option, it will take the name I give the image and create separate files with this name and _L and _R extensions for the left and right images. These separate Left & Right image files located together are handy to have for doing later work with the images, and makes it easier to find and use them with the 3-D editing programs. For this example I put the named L/R pairs into the Test12004_Merged folder.

(Theoretically, once you have saved all of the Left/Right images that you want to keep into the Merged folder one could consider deleting the original separate Left and Right folders to save space.)

The 3-D editing programs also allow you to save the manipulated image pairs as an anaglyph or side-by-side stereo pair, and, in this case, I would save them to the Test12004_Edited folder, as ready-to-view images.

Naming your images can be a great descriptive help. For example, I use NAMEanag.jpg for anaglyphs, NAMEsv4x6.jpg for 4" x 6" side-by-side print stereoviews, and NAMEsv5x7.jpg for classic 3.5" x 7" stereoviews printed on 5" x 7" paper (and trimmed after getting them back from the lab).

Most of these programs seem to be one-author programs, and being updated with some regularity as feedback from users comes in. (So check periodically for updates on whatever ones you are using.)

Pokescope Pro has one feature I like that I have not yet found in the other programs. It has attractive templates for easily making side-by-side pairs on standard 4" x 6" print paper, or classic 3.5" x 7" cards (with a choice of straight or curved tops) printed on 5" x 7" paper. Again, I won't do a tutorial on this, as full information may be found at www.pokescove.com.

Once the print files are adjusted and sized for the size prints that you want, they may be copied onto a CD, or back onto a memory card, for taking to a lab that does prints from digital files. As an example, at my local Costco lab, I'm getting 4" x 6" prints for 19¢ each, and 5" x 7" prints (that I trim to 3.5" x 7" later) for about 60¢ each.

As of this writing I have not yet converted any of my digital images into slides, but I have seen slides made from digital image files at our local stereo club, and at the Stereoscopic Society.

Unless you own an expensive film recorder, the only way to get slides from digital files is to send them (by email attachment) to a service bureau such as www.colorslide.com or www.slides.com. The web sites of these companies explain the process of getting slides made from digital files.

If 3-D slides are your main goal, you may want to pass on digital 3-D photography for the moment, as the cost is around $2.50 per slide, and that's 2 slides for each stereo pair! If you'd be happy with on-screen viewing, and mostly anaglyph or side-by-side prints, with occasional slides, then digital 3-D has a lot of advantages to offer! Rigs like the ones being made by Jacob van Ekeren, and those using the LANC Shepherd box now make this an easy possibility.

We can only hope that in the not-too-distant future that one of the big camera manufacturers might consider making a true all-in-one digital 3-D camera. Unlike a 3-D film camera, a 3-D digital camera would be much simpler and cheaper to construct.

With a number of 3-D image editing programs available, it would be easy to envision one that is dedicated to a sequential Left/Right series of pictures from a single 3-D digital camera, and which could automatically convert them for viewing as anaglyphs or prints with just a click or two!

As digital flat photography is rapidly replacing traditional film photography, it may be just a matter of time until we see a similar revolution in 3-D imaging.

Just as I was completing this article I was made aware of a superb online article by John Hart that was just posted at http://www.crystalcanyons.net/Pages/3DGuidebook/Digital3D.htm.

This article covers many of the same topics that I have, and in much more technical detail. John has taken the DIY route using the LANC Shepherd controller, and a beautifully self-made aluminum bracket. For those of you who want more camera features, and have DIY constructing skills, this article will tell you all you need to know. It also includes a great illustrated tutorial on using StereoPhoto Maker, as well as other useful tips on processing your stereo digital images, and concludes with what you can do with all of those stereo images once you have taken and processed them with SPM.

Another last-minute bonus! When I got these digital cameras my only thought was to create still 3-D pictures. However, the cameras are also capable of taking MPEG videos. I didn't consider this, as I assumed that preparing them to view would be difficult. Thanks to Masaji Suto, the latest version of StereoMovie Maker (SMM), available from the same website as StereoPhoto Maker, will support Inverting the left camera movie. This program will allow you to import Left and Right MPEG or AVI files, align them, and then play them back in several formats, including side-by-side, anaglyph, or interlaced. Then you can store the final movie as an AVI file that can be viewed easily on any computer. (Warning! These take up a lot of memory!)

With the cost of digital equipment dropping, and the power and capabilities increasing daily, this offers a fun and easy way to create 3-D images without the processing and mounting obstacles of making 3-D slides or traditional trim-and-paste stereo cards!
During the 2004 NSA Board meeting in Portland, Stereo Theater volunteer Rich Dubnow agreed to head a Stereo Theater Committee with Jon Golden, Ron Labbe and Shab Levy to formulate uniform standards for image formats and equipment in future conventions. These changes are reflected on the 2005 Stereo Theater Proposal Form. For a look into the background of the new standards, Rich was interviewed by John Dennis in March, 2005.

SW: I noticed some very specific statements on this year's Stereo Theater Form. First, that all slides must be precision mounted in correct trays, “NO EXCEPTIONS.” Plus, the available projection equipment will be Ektographics for 2x2 pairs and RBT projectors for 4x101 RBT mounts only, and that “no other equipment will be available.” There are also some specific technical requirements for the music, narration and synchronization tracks that go with the slides. Some people may find these tighter rules a bit draconian. Can you describe what happened during NSA Portland ’04 to prompt these changes?

RD: Well actually it’s not just what happened in Portland, but it’s what has happened in every NSA convention—what has gone on for more than 20 years. It is a national convention. We’re bringing together people from all around the United States and around the world. Theoretically we’re showing our best images and putting our best foot forward. What’s happened is, without any standards, without any coordination of efforts to determine how things are going to be shown, there’s been basically chaos in the showing of images in the Stereo Theater.

Individuals come with slides that don’t work in projectors. Even the Brackett projectors we’ve used for years jamb a lot with incorrectly mounted slides. The reason for limiting it to slides that are precision mounted (either 2x2 or RBT) is that forces people coming to a national convention to bring shows that flow with everybody else’s and don’t waste time or throw the entire Theater into chaos by having things that won’t work. It’s as simple as that.

SW: So you’re not talking about content, you’re talking about technical matters?

RD: Absolutely.

SW: Do you anticipate problems or stresses even within the stricter guidelines?

RD: I don’t want to call it stricter, I think uniform is a better way to present it. It’s very very hard for volunteers to put on a Stereo Theater and have everything work perfectly. It’s not the nature of the equipment. Problems in the future will be minimized by having two forms of projection with quality equipment that does not break down very easily. We also have back-ups so that if something does go down, we have back-up immediately.

SW: Will this allow time for rehearsals and/or more shows?

RD: Our feeling on the committee was that the Stereo Theater goes on for maybe twice as long as it should. We’re hoping to limit it to fewer shows but better quality. We’re not going to say that if you provide a show that’s in the correct format that it won’t be shown. But a lot of people just aren’t taking time to do their work prior to coming to the convention and they’re leaving that work up to other individuals which just isn’t fair to the Stereo Theater staff.

SW: Also mentioned on the form is a 20 minute limit. Do you anticipate that becoming permanent?

RD: The 20 minute limit is a guideline. There have been some shows of 30 or 40 minutes. We would like to reserve the right to see that show in advance and know that it requires a 40 minute time frame. A lot of shows are repetitive in their pictures or very slow in their format and they could be edited to very nice 20 minute shows that people would
enjoy rather than being bored for 40 minutes.

**SW:** And then there are those 10 minute shows that move so slow they seem like 40 minutes....

**RD:** We're hoping that the Stereo Theater at the national convention is a forum for the best in the country and around the world. My own personal goal would be to present shows that have been judged on a local level and deemed to be worthy of a national level by being juried by a local club.

**SW:** That would be less intimidating for first timers than starting out at a national level and could encourage more people to create shows. Are there other kinds of help for new presenters?

**RD:** There is help for new presenters who don't have the capability of programming their own shows. For Portland, I believe there were at least two shows that were sent to other individuals long before the convention to be programmed. Hopefully those who created the images and the narratives learned something about programming their own material with the sort of pace and style that makes good shows. If someone has created the content of a show but needs help program-

**SW:** Do you anticipate a large percentage of slide shows eventually being shot in or translated to a digital format—easing the work load of the slide projection volunteers?

**RD:** Over the past three, four or five years, it's been moving more and more to the point where it's now about 50% digital and 50% film. I think probably within the next decade, film will not be an avenue people are going to use. Thinking in terms of that, I'm hoping there will be some good workshops on how to put digital slide shows together. Personally, I would love to learn how to do that. I don't have a very good background in it.

**SW:** Did the committee like the idea of integrating the digital and slide projection programs into the Stereo Theater—devoting a half day to each instead of running a separate “Digital Theater”?

**RD:** That worked out very well because the set-up time to make things work smoothly requires at least a half a day's time just devoted to digital or to slides, so the format worked very well.

For more information about the Stereo Theater, in general or for 2005, contact Rich Dubnow, 20265 S. Lower Highland Rd., Beavercreek OR 97004, Rich@Image3D.com.

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Visit [www.ray3dzone.com/SCSC.html](http://www.ray3dzone.com/SCSC.html) or call 310-377-5393.

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**Bilateral Vision Fields (Continued from page 27)**

dramatically as you pull your indexes slightly apart and bring them closer to your eyes, say from 20cm to 15cm away, and half a centimeter apart. The finger transparency and image superimposition then become more evident.

In general, this implies that eyesight is not only based on two camera-like images projected onto the retina, and then processed by the eye-brain computer system.

A more complex system is imagined, in which, additionally, the convergence of the visual axes on a point establishes, whilst the head is held vertically, an apparently vertical center line, of a thickness probably related to the fovea area angular “aperture”, which both eyes concentrate on, but the left eye concurrently is “aware” of what is taking place to the right of this “virtual” center line, ready to instruct a shift of attention if the necessary impulses are there, the right eye being concurrently “aware” of what is happening to the left of the “virtual” line, both intent on their focus, but scanning opposite sides for any events that need to be relayed to the eye-brain computer system.

Bilateral cross vision covers the whole visual field, giving “opposite side” levels of awareness to insure the best possible visual performance, bypassing the blind spots and possible areas of lesser clarity of vision. © Dominic Michaels 2004
I am amazed at the power of the Web for researching the origins and history of cards in my stereoview collection. The Web is a huge storehouse of obscure history and trivia that is unmatched by most paper-based libraries. Web search tools, such as Google (www.google.com), far surpass the research capabilities of any library's card catalog. As an illustration of this power to uncover obscure facts and history, I will describe a successful Web-based detective hunt.

I usually avoid buying antique stereoviews with no visible attribution. My goal in collecting focuses on finding as many identifiable stereo manufacturers as possible. At one time, I thought that I might be able to obtain a sample from every manufacturer that existed in the golden years of stereophotography. Unfortunately, the two volumes of Stereographers of the World (Treadwell & Darrah) have convinced me that the existence of thousands of manufacturers makes this an essentially impossible task. There are also thousands of amateur-made stereoviews, and most of these were never identified nor dated.

Recently, I found that I had inadvertently purchased a stereoview with no identification of origin, date, or manufacturer. The picture appears to show an historic public event. But what is it and when was it made and why and by whom?

I see a parade. There are floats and marchers who appear to be firemen. In the background, I see a banner, railroad boxcars, and some buildings. The clothing is obviously old fashioned and people are using horses for transportation.

Some clues can be found by examining the materials used. The card stock is a standard four by seven inch Cabinet Size. The stock has a built-in curve. Waldsmith in Stereo Views dates Cabinet Size as starting in 1874 and curved...
mounts as being popular starting circa 1890.

A home computer scanner makes a great microscope for examining stereoviews. Mine is much less expensive than the equivalent microscope, and I prefer viewing on a computer screen to looking through a microscope or magnifying glass. I scanned one of the stereo halves of this stereoview at the highest scan resolution. Then, I used the Adobe Photoshop program to magnify and examine the image in detail. Adobe Photoshop can also be used for enhancing contrast and bringing out small features. The enlarged view is shown below along with a number of clues that I identified for my research.

Clue #1 is the banner with the name, "SE CARNIVAL". From the placement of the words, I guessed that "SE" is part of a longer word. I always start with my simplest guess, so I chose the key words "ROSE CARNIVAL" for a Google search. Google identified 499 web sites with those key words. Most of them described glass bowls and cups for sale. There were a number of carnivals named "Rose Carnival", including ones in Oregon, California, Washington, Florida, Ohio, England, Australia, India, and Bulgaria. Since the banner is written in English, I decided to rule out Bulgaria. California had two Rose Carnivals. One was in Pasadena and one was in Santa Rosa.

Clue #2 is a partial view of a small sign in the upper left-hand corner. Under magnification, the text was blurry, but some letters could be read, and others could be guessed or at least counted. I looked at both copies of the sign before making my best guess. The sign announced a company that shipped from the pictured location to nearby towns. If I could identify a few of the towns, I might be able to guess the location of the sign, which would have to be a town with a train track.

Although the Web can be used to view maps of the US, I find it much more convenient to use an inexpensive but comprehensive program, Microsoft Streets & Trips. This program, which can be purchased at discount stores for about $10, shows virtually every city and street in the United States. I began my map search at San Francisco and zoomed out enough to see some of the surrounding cities. Then, working backwards, I fitted possible names to the blurry letters:

FREIGHT EXPRESS
RECEIVED HERE FOR
SEBASTOPOL GRATON FORESTVILLE
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The closest large city to these is Santa Rosa, California. But, I was still making some big guesses.

Clue #3 is the letter group, "NWP", on the side of a boxcar. Again, I used Google with the key words "NWP history railroad". This led me to the Web site, nwprhs.org, the site for the Northwestern Pacific Railroad Historical Society. I learned that the Northwestern Pacific Railroad was founded in 1907 and still exits. It passes through Santa Rosa, California.

I decided to return to Clue #1 and learn more about the Santa Rosa Rose Carnival. Unfortunately, the Google keywords "Rose Carnival" had yielded very little information beyond the fact that such a carnival had existed. I tried again using the Google keywords "parade "santa rosa"". Note that Google interprets words between quotes as a word phrase that must always go together. This time, I found the site, www.roseparadefestival.com/~arade.html, which told the following story: "History of the Luther Burbank Rose Parade Festival: Though the famed horticulturist Luther Burbank took part in the event as early as 1914, the annual tradition began in 1894 with the first Rose Carnival. It continued until 1926 when it was canceled due to Burbank's death, shortly before the festival." Now I understood that my problem in search-
ing for the “Rose Carnival” was due to a name change to “Rose Parade & Festival.”

Clue #4 is the banner dates of “May 15 - 16”. I made an assumption that a two-day carnival was likely to fall on a weekend. Certainly, the lack of street lighting in the photo would discourage Friday night activities. Using my computer's Microsoft Outlook calendar, it was easy to go back in time to look for weekends that fell on May 15-16. Using my lower bound date from Clue #3 of 1907 and my upper bound date from Clue #1 of 1925, I identified the possible years as 1909, 1915, and 1920.

Clue #5 is a car. This float-carrying automobile stands out because it is alone in a picture that shows two floats being drawn by horses and three horse drawn wagons. This seemed to indicate that the picture was made early in the history of automobiles. I was unable to find any information on the history of cars and the Santa Rosa Rose Carnival. However, I did learn something from Google and the keywords “history automobile “rose parade””. This yielded information on the much larger Pasadena Rose Parade history at www.tournamentofroses.com/photogallery/timeline/tl-1900b.htm. The first year motorized vehicles were allowed as float entries in the Pasadena Rose Parade was 1901.

Thus, it was possible for a car to exist in a 1909 parade as suggested in Clue #4.

Clue #6 is the clothing worn by the spectators. Unlike the present time, it appears that this parade in the early 1900s was a time to dress up and, presumably, wear then-fashionable clothing. Thus the clothing could be another indication of the time period. For this research, I turned to my daughter, Suzanne, an emergency-room doctor and seamstress extraordinaire. She referred me to John Peacock's, The chronical of western fashion: from ancient times to the present day, which shows drawings of representative clothing from 2000BC up to 1980. Suzanne’s guess, based upon the women’s hemlines, full sleeves, high collars, boater hats, and the men’s bowler hats, was 1895 to 1910.

Clue #7 is the absence of something. There are no military uniforms, flags, nor any other evidence that the time frame could have been around World War 1. The U.S. fought WW1 from April 6, 1917 until November 11, 1918, so there is some indication that the picture was taken before that period. Of course, this could also mean that the photographer failed to include the evidence in his picture.

Clue #8 is the building next to the boxcars in the upper right corner of the photo. This proved to be the clue that confirmed many of the others. Its location next to stationary boxcars and at a corner of two streets could suggest that it was a railroad depot. Using the Google key words “Northwestern Pacific Railroad depot” and “Santa Rosa”, I located the web site www.railroadsquare.net/services/services.asp. That site showed a photo of the building in my stereoview. The building still stands and is now the site of the Santa Rosa Convention and Visitor's Bureau located at 9 Fourth Street in “Railroad Square.” A Google search of “railroad square” yielded more details. The building was constructed in 1904 and it survived the 1906 San Francisco earthquake.

After finding the address of the depot, I again used my computer and the map program Microsoft Streets & Trips. The street intersecting the train track is Fourth and the other street is Wilson. Fourth Street ends at the track. The view is looking due west. Some day, I plan to visit the train station and take pictures to compare with my stereoview.

Thus the Northwestern Pacific Railroad depot building in the photo became the key piece of information. It told me that the location of the photo is certainly Santa Rosa, CA, and the event is the Santa Rosa Rose Carnival. The most likely date is May 15 or 16 of 1909.

There are other clues in this stereoview. For example, it might be possible to estimate the time of day from the shadow sizes, given that the date is now probably known. Also, there are power and/or telephone poles that could give still more indications of an approximate year.

I have no clues about the photographer. Professional or amateur? Certainly, the lack of any printing on the card suggests an amateur, but I may never know.

Of course, I was lucky. Most stereoviews do not contain so many clues. However, there are other stereoviews in my collection with clues that I plan to research in the future. The detailed findings of this kind of study still astound me, but almost anyone with a computer and a modem has the means to do Web research. You don't even have to leave your desk. If I only could have had such a research tool in my college days!

References:

3-D Conversations
(Continued from page 6)
future of 3-D via digital projection in both regular and Large Format venues provides an ideal balance with the more nostalgic opening interview with Arch Oboler about Bwana Devil's iconic place in 20th century 3-D history.

Digital technology may be on the verge of making 3-D motion pictures truly mainstream in both production and exhibition whether they are animated, live action or both. Influential industry figures from James Cameron to Robert Rodriguez to now even George Lucas could, with enough commercially successful 3-D releases, bring things to a tipping point where audiences actually expect the next blockbuster (and eventually many independent and foreign films) to be in 3-D and to be shown that way at their local multiplex. (See NewViews in this issue.) Historical documentation like that in 3-D Filmmakers will provide some of the all too rare background information on the origins of any such change.

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FINE OFF-EBAY STEREOWVIEW AUCTIONS WITH DIRECT BIDDING ON-LINE,
AS WELL AS BY PHONE, FAX, E-MAIL TO ME, AND POSTAL MAIL.
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You are welcome to register for my stereoview auctions. There is no charge.
I also have a separate registration for my View-Master (Etc.) Auctions, which have
more-modern stereo and 3-D formats. I am presently selling off the Willie Aarts Collection
with some of the Rarest of the Rare in View-Master reels and viewers.

I SPECIALIZE IN CONSIGNMENTS.
Consignments welcome,
from a single view to giant
collections.

← Left: Helene Leutner
(German Actress)
→ Right: The Young Velocipedist

← Left: Edward Stokes, who shot
Jim Fisk over
a woman.
→ Right: View from the wood car,
behind the locomotive
in full motion.

← Left: Tissue Genre View.
→ Right: General U.S. Grant