Shuffle Off...Soon!

The 27th annual NSA convention will be held July 19-23, 2001, at the Adams Mark Hotel in Buffalo, NY. Identify yourself as attending the National Stereoscopic Association 2001 Convention in order to receive the group rate of $90.00 (plus taxes) flat room rate, per night, single, double, quadruple occupancy. This is guaranteed to be the lowest available room rate. Adam's Mark Buffalo, 120 Church Street, Buffalo, NY 14202, (716) 845-5100, reservations: (800) 444-2326. For more information visit the convention web site: http://nsa2001.home.att.net.

Need Convention Forms?
If you have lost any forms or didn't receive one you need in our previous issue's inserts, write to NSA, PO Box 86708, Portland, OR 97286

Stereo Exhibits in NYC
Those visiting New York City on the way to or from the Buffalo convention can see two stereo exhibits by NSA member Lynn Butler. "Waking Dreams" with 25 Stereo-Jets, two Phantograms (anaglyphs) 7 feet by 9 feet and three stereo-viewer pieces with Dream Sequences can be seen at The Hudson River Museum, 511 Warburton Avenue, Yonkers, NY, 10701 (914) 963-4550, June 12th through September 15th. "Horses" with two digital Phantograms 7 feet by 9 feet is the second show (which will travel around the country), at the Brooklyn Museum of Art, 200 Eastern Parkway, Brooklyn, NY, 11238, (718) 638-5000, June 22nd through September 5th.

A Note to Stereo Historians Headed for Buffalo:
I am currently conducting research on the history of the stereograph/stereoscope in the United States from 1865 to 1970. In particular, I am interested in the roles played by the major producers of stereo material, such as the Kilburn Brothers (and other Littleton, New Hampshire-based companies), H.C. White, Underwood & Underwood, and the Keystone View Company. I am very interested in making contact with (Continued on page 2)

George Barker No. 149, "horseshoe Fall - Niagara On line of N.Y. C. & H.R.R.R." The 19th century Niagara landmark Terrapin Tower featured here is long gone, but a much higher and uglier tower now awaits visitors to the Buffalo/Niagara area.

NIAGARA FALLS.
NEW YORK.

GEO. BARKER.
PHOTOGRAPHER.

149 Horseshoe Fall—Niagara
On line of N. Y. O. & H. R. R. R.
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ON THE COVER
Jack Palance and Joan Fontaine in an 11x14 inch Harvey Prever lenticular promoting the 1953 Paramount 3-D film Flight to Tangier. For more about these amazingly perfect lenticular stereos and the late pioneer Hollywood photographer who created them, see our feature "The Lenticular Legacy of Harvey Prever" by Robert Vance.
First, we need to offer our apologies to NSA member Dan Shelley for misspelling his name in the previous issue’s coverage of the workshops in Mesa. Besides his workshop on the creation of anaglyphs on a computer, Dan made the annual internet meeting far more interesting than some have been in the past with his presentation and demonstration of stereo web site creation. Dan has volunteered his expertise providing web sites for NSA conventions as well as hosting the official NSA web site www.stereoview.org. His own web site, www.dddesign.com/3dbvdan includes a wealth of images and information with well organized links to 300+ 3-D related sites.

A Stereojournalism First

The April 21st issue of the Toronto Star included over 30 pages in anaglyphic 3-D, from news coverage of the protests surrounding the Quebec City Summit of the Americas to the Sports, Business, Arts & Entertainment, Travel, Homes and Automotive sections as well as about 20 ads. While the quality of the anaglyphs varied, the sheer amount of 3-D presented was a first in any major newspaper. Background information about 3-D technology was included along with some images by NSA member Simon Bell. An article about the 3-D Star by Robert Wilson will appear in the next issue of Stereo World.

ISU Sydney

The NSA convention in Buffalo isn’t the only major stereo bash this year. The 13th World Congress of the International Stereoscopic Union will be held in Sydney, Australia September 19-24. Following the closing of the original hotel for the congress, the new venue is the 4-star Boulevard Hotel, 90 William St., Sydney, NSW 2011, Australia, phone +61 9383 7209, fax +61 9357 1547. Rates for the ISU congress are AU$140.00 per night and bookings must be made before August 1st, 2001.

For congress details and registration forms, visit: http://www.isu2001.conf.au/sydney/index.htm or contact Nancy Moxom, Secretary, ISU World Congress, 46 Glenayr Avenue, West Ryde NSW 2114, AUSTRALIA, Phone: +61-2-9874-5447, Fax: +61-2-9804-0098 Email: sydney@isu.conf.au.

SSA 2000 Yearbook

The latest edition of the Stereoscopic Society of America Yearbook features the work of 109 members with a dedicated page for each member. The pages contain a short biographical statement and brief description of the images written by the members. (The design is similar to the 1999 Yearbook as seen on page 28 of SW Vol. 26 No. 6.)

A thirteen-page introduction by SSA General Secretary Norman B. Patterson tells the story of the Stereoscopic Society of America spanning the last century. The book also contains an updated membership directory and other information about the Society. Member pages are printed on one side of the sheet. The book has a total of 144 printed pages on 129 sheets of 8½" x 11" heavy stock, bound in wire. Except for the glossy cover and back, the book is printed in B&W. The yearbook was designed and produced by Shab Levy and printed commercially directly from file on a laser printer. Copyright 2001 by the Stereoscopic Society of America and Shab Levy, the $15 price includes shipping in the USA. For details contact Shab Levy, 6320 SW 34th Ave, Portland, OR 97201, shab@easystreet.com.

Next Issue:

Among the features in our next issue will be a deep look into the new Vivitar 321 3-D camera. Made by Loreo for marketing by Vivitar in the U.S., the camera (shown on page 32 of SW Vol. 27 No. 3) exposes right and left images on a single 35mm frame for automated 4x6 inch prints by any 1-hour lab. Unlike the Loreo, the 321 mirrors don’t transpose the images in the camera, leaving that job to the special viewer included with the camera. The new design eliminates the light flare caused by the Loreo mirrors and requires no “nose” type lens shade. Our article will include test samples, a critical look at the 321’s strengths and failings, and a close-up, strip-down look at the first point-and-shoot stereo camera to be marketed by a big-name, mainstream camera company.

Shuffle Off...Soon! (Continued from Inside Front Cover)

persons knowledgeable about this subject matter, along with those who had a connection with Keystone (as employee, client, or customer) during its waning years. I will be attending this year’s NSA meetings in Buffalo where I would like to have discussions with persons who share these historical interests. I can be contacted at the Adam’s Mark Hotel during the meetings, in advance by e-mail buxton@vax2.concordia.ca, or by telephone (418) 682-1257. I would also appreciate information about persons whom I might contact, as well as material in private collections and archives that could be of relevance to my research.

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4 Recent Gems from the NSA Book Service

Most members are aware of NSA Book Service, but many are surprised when they discover the wide and rich variety of stereo related publications available. While some of the 146+ items on the list are available from other specialized sources, many are unique to the Book Service. Among these are reproductions of rare view lists and catalogs of stereo related publications and publishers behind it. Also found only through the NSA Book Service are the research works of Tex and Joleeta Treadwell, published as part of the Historical Series of The Institute for Photographic Research. Four of their recent efforts cover distinct areas of interest, cataloging and reprinting material difficult or impossible to find anywhere else in the world. They include a lecture on the history of stereo by the president of the Keystone View Company in 1949, an illustrated, comprehensive catalog of comic view sets, the Raumbild-Verlag catalog (in English and German) of 100 views covering the 1939 German occupation of Poland, and the famous *Atlantic Monthly* articles on stereoscopy by Oliver Wendell Holmes.

The Holmes reprint is the most extensive of the four, and includes original research into the invention of the Holmes stereoscope as well as the current status of Holmes’ own collection of stereoviews—the images on which his extensive writings about stereoscopy in the *Atlantic Monthly* were based.

Most serious collectors and students of stereoviews have come across the more famous quotes from those 1850s-1860s articles. Viewing No. 203 of the Anthony New York series he writes of the detailed view of Broadway, “It is a leaf torn from the book of God’s recording angel.” Judging the place of stereography in the media technology of the day, his enthusiasm and optimism lead him to write, “The stereograph, as we have called the double picture designed for the stereoscope, is to be the card of introduction to make all mankind acquaintances.”

The full impact and a real appreciation of quotations like these can only be found by reading them in their full context. In 1864, Holmes expanded on his three articles and published them as *Sounding From the Atlantic*—the facsimile reproduction of which forms the bulk of the new publication from the NSA Book Service.

For the complete NSA book list, visit www.stereoview.org or contact NSA Book Service, 4201 Nagle Road, Bryan, TX, 77801. Prices include book-rate postage in the U.S. and Canada. Overseas members remit in U.S. funds and $2 per book for surface postage, $6.00 per book for air postage. Allow 2 weeks for delivery in the U.S. and by overseas air mail; 5 weeks overseas. Return privileges if not satisfactory.

- **Facsimile Reproductions of Three Articles** by Oliver Wendell Holmes: “The Stereoscope and Stereography,” “Sun-painting and Sun Sculpture” and The Doings of the Sunbeam plus discussions of his invention of the hand-held stereoscope and the fate of his stereoview collection. The Institute for Photographic Research Historical Series #4, 6/2000 T.K. Treadwell, 155/77 pp. $9.00

- **Oliver Wendell Holmes—His Pioneer Stereoscope and the Later Industry**. George E. Hamilton. Annotated and published 6/1999 by The Institute for Photographic Research, Historical Series #2. On 4 November 1949 Mr. George E. Hamilton was the invited speaker at the banquet held at the Erie Club in Erie, Pa. Mr. Hamilton revised and extended his address and it was printed in a pamphlet of which this is a facsimile copy. His remarks are important in that they are one of the very few known pronouncements of anyone in the stereophotography business, and doubly so since they came from the head of the sole surviving manufacturer of stereoviews in the twilight days of its existence. Hamilton’s history of the distant past of the field is extremely interesting, although it contains some few factual mistakes and questionable interpretations. In spite of these, his discussion of the history of the Keystone company is well-nigh priceless, since as its president he was surely the ranking authority on it. The book opens with a brief discussion of the stereoview industry in Littleton, NH in 1930 by W.W. Taylor. 32/24pp. $4.00.

- **The Comic Sets of Stereoviews**. The Institute for Photographic Research, View List series #35, 2001. A view list of 100 comic view sets of 2 to 15 views, with illustrated examples from each. 40 pp., $6.00.

- **A Facsimile Reprint of A Catalog of Stereo Coverage of the German Campaign in Poland, 1939 published by Otto Schönstein R.G., Munich, With a companion translation of the text into English by Bill and Krys Walton**. The Institute for Photographic Research, $4.00.
The Lenticular Legacy of Harvey Prever

By Robert Vance

Hollywood's first and greatest lenticular photographer died at the age of 83 on November 19, 1999. Harvey Prever was born in Brooklyn, NY in 1916. Born into the film business, he was always a photographer, and a very rare type—the “artist/businessman”. As a child, Harvey's family was associated with a pharmacy that accepted orders for film development. Harvey decided he could do the developing and make money for himself and by the time he was ten he had an over-night film development business which he conducted in his bathroom. The year was 1926. As a teenager, he won a Kodak sponsored photography contest with an extremely detailed head shot of “The Bum's Face”, taken in the back alleys of Brooklyn.

Before I get into the next part of Harvey's life, I think it is important for you to know what had already happened in autostereoscopic history. In 1902, Frederic Ives, of the United States, had developed a process and viewing system utilizing a barrier grid and a stereo pair called a “Parallax Stereogram”. Both the British and the French claim they did this first, but Frederic was first to patent. In 1908, Gabriel Lippmann, a renowned French/Hungarian optical physicist and professor proposed a new group of optical theories of autostereoscopic imaging [photographie intégrale] based on a series of minute lenses. [That same year, Lippmann was awarded the Nobel Prize for Physics for his 1891 color photography process.]

Becoming infatuated with the first three dimensional glass slide he observed in the '20s, Harvey Prever pursued his fascination. What He had seen was a hand-tinted color “Parallax Panoramagram.” Clarence W. Kanolt from Long Island City, NY had patented this process in 1918 in the U.S. and used Parallax Panoramagram as a trademark. This type of autostereoscopic image was produced utilizing a continuous scan camera with a barrier grid in the film holder. The Parallax Panoramagram could be also accomplished by two other less sophisticated and more time consuming techniques.

Harvey moved to Rochester, NY and started working for the company using this barrier grid/scanning camera technology, VitaVision. In the '20s Kanolt was working with a man named Herbert Ives, from New Jersey, who was the son of the previously mentioned Frederic Ives. By the late
"The Girl and the Gorilla", is a lobby card sized Prever lenticular promoting the movie Phantom of the Rue Morgue (Warner Brothers, 1954). Dolores Dorn is seen here with the gorilla. (All images from the author's collection except as noted.)

'T20s (when Harvey became interested in 3-D), Herbert Ives and Kanolt were in competition with each other. Gabriel Lippmann died in 1921 but was considered the "god" of all involved.

During the '20s and '30s, there was autostereoscopic research being done in the U.S., France, England, Germany, Spain, Italy, the Netherlands and Russia. Autostereoscopy was being experimented with not only for photography, but also motion pictures. Additional players included Dudley in England and Bonnet, who worked with Dennis Gabor (the man who coined the word "Hologram"). Bonnet and Gabor actually worked with Lippmann. Herbert Ives and Dudley researched Lippmann and his theories extensively, and probably worked with him as well. There were many others who had 3-D patents at this time, but those mentioned are the major early players involved in the U.S.

Back at Vita-Vision, the 3-D black and white glass (positive) slides were being hand tinted. The tinting has the appearance of pastel shades of transparent color. I have only seen one of these Parallax Panoramagrams, but these are much more rare than the Prever Collection and were done in the

20s, '30s, and '40s made mostly or completely of glass sheets and are always backlighted. It was at Vita-Vision that Harvey met his wife to be, Evelyn, who eventually became chief colorist of the company.

While at Vita-Vision Harvey learned all he could about where to get the specialized camera systems and parts, as well as the theories and methodology involved with 3-D studio photography. More than anything else, he believed that 3-D was the wave of the future and he wanted to be at the top. He hoped one day to have his own futuristic 3-D studio.

By 1929 there was an explosion of experimentation related to autostereoscopic theories and several different types of camera systems were built. Commercial barrier grid autostereoscopic photographic studios were multiplying in New York State, the optical research center of the U.S. But a newer technique of autostereoscopic photography utilizing lenticular screens was beginning.

Supposedly, the lenticular screen was an improvement over barrier grid technology. As far as autostereoscopic scanning cameras were concerned, the lenticular screen allowed the use of much less light for the original master image, as well as "supposedly" better focus and a lot less light for viewing. Additionally, a reflective copy could be made where as the barrier grid must always be illuminated from the rear. (It should be pointed out that all lenticular art is best viewed "back lighted". Lenticular is a "projection" of the images recorded.) Additionally, the multiple 2-D image changing properties of a lenticular had been discovered. (A modern example would be a lenticular action baseball trading card.)

As early as 1929, C.W. Kanolt trademarked the term "Depthograph" which was a 3-D photo-

Jack Palance and Joan Fontaine in an 11x14 inch Harvey Prever lenticular promoting the 1953 Paramount 3-D film Flight to Tangier. (Reel 3-D Enterprises Collection)
graph utilizing a lenticular screen. He patented a camera system making such a 3-D image in 1931, and finally in 1934 patented a perfected way of producing quality, long lasting copies from his master images.

The early lenticular screens were surprisingly, plastics (mostly acetates), but it was discovered that the plastics deteriorated, shrunk and warped over time. An improved version lenticular was a combination of glass and laminated plastic onto which a lenticular surface was molded, the glass sheet functioning as the substrate. By the very late '30s, most of the autostereoscopic researchers of the world were working with the improved lenticular screen techniques. Still, much of this new lenticular technology had not filtered down to the public. Regardless, Harvey had been exposed to various screen designs at Vita-Vision and knew that some lenticulars were focused and others were not. He also knew that few screen designs were consistent in qualities from screen to screen. Unfortunately, World War II was brewing and a lot of this technology was becoming classified as "top secret".

Harvey was called to duty in the Air Force during the war and was involved with aerial reconnaissance photography in both the Pacific and European theaters. By chance, one day, Harvey heard of a "top secret" project involving lenticular photography. He actually saw an example of this process and was convinced that this mostly glass lenticular was the best he had ever seen. The project was being developed by the U.S. and French governments for a 3-D aerial reconnaissance scanning camera system. I am not sure who the American counterpart in the project was, but at the end of the war a French scientist and autostereoscopic camera designer, Maurice Bonnet, was amazing American GIs in Paris with three dimensional photographic portraits right on the Champs-Elysées.

After the war Harvey had two goals: 1. Get a job with someone interested in 3-D photography and start a lenticular company. 2. Settle down with Evelyn. He was 29 or 30 years old by this time and ready to start a family. Harvey soon met and started working with Mr. Paul Hesse, who was a famous, established portrait photographer in...
corporation coincided with new and improved 3-D movies utilizing polarized glasses. The first entertainment industry full color lenticulars were made in 1951 as an entrepreneurial experiment using glass lenticulars and large format transparency film. Mr. Prever, at Hesse’s Studio, accomplished all of these 3-D images for motion pictures released from 1952 through ’54.

Sadly, because of the cost involved for each 3-D copy and the fact that theater owners had to buy their own promotional fare for each movie at this time in history, the project was not considered an overwhelming success.

The 3-D Lobby Cards were only shown in a few theaters in Los Angeles, New York, Chicago and Atlanta. But yet the beautiful artwork still existed. Some of the questions from theatergoers were also just too hard to explain: “Why do I have to wear these glasses to see the movie, if I can see the 3-D in these lobby cards, without glasses, just fine?”

Throughout the 1950s, Mr. Prever and Evelyn eventually traveled to many parts of the country setting up three dimensional portrait studios. He mentioned Texas, New York, Chicago and Atlanta. I am sure there were others. Into the 1960s, Mr. Prever experimented with various photographic art venues, finally concentrating on religious icons as a “bread and butter” revenue generator for the company. The famous 3-D Jesus,

Hollywood, CA. It is for him that the company was first named. Paul Hesse had financing money plus a complete studio and laboratory. All of these things were necessary, but funding was especially important to acquire the right 3-D equipment and technology. Soon his wife Evelyn was again a chief colorist in a studio/laboratory situation. Finally, in 1946, Harvey was pursuing lenticular technology and his dreams.

Much of Mr. Prever’s preferred equipment was from France, of designs developed by Maurice Bonnet. He was also partial to some of the equipment of Ives and Kanolt.

Somewhere in this mix of research and development Harvey Prever met Victor Anderson. Both men were “sourcing” equipment and I believe this is how they knew each other. Prever and Anderson were not competing. Harvey was moving in the direction of low volume and highest quality, utilizing glass lenticulars and photographic film with back lighting. His whole concept was based on a small custom photographic studio while Victor’s approach was the mass production of reflective lithographic products with plastic lenses. The bulk of his products were “give away”, “changing image” 2-D pictures. But Victor apparently did produce a much greater number of 3-D products than Harvey.

Robert Cantieni of Germany produced another large collection of 3-D products, but again this is reflective lithographic production, using plastic Lenticular screens. Most of the Cantieni collection was mastered, I am told, in the last half of the ’60s.

Back in 1951 Hollywood, Paul Hesse’s Three Dimensionals was officially incorporated, Mr. Prever being in charge of the three dimensional technology and project development. The official establishment of the Hesse/Prever

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whose eyes seems to follow you around the room, was Mr. Prever’s original color transparency lenticular creation.

His most famous piece from the Entertainment industry collection was called “The Girl and the Gorilla”; a “slightly animated” lobby card sized poster from the movie Phantom of the Rue Morgue. Hopefully also somewhere out there are also many beautiful commercial pieces done for the liquor, wine, and beer industries, as well as cigarette and coffee companies, Coke, Kellogg’s, and even Whirlpool Bras. Another small collection consists of pinup and sweater girls. If you have a 3-D piece of back lighted lenticular art which you know has a lot of glass involved, you have a Prever, or surely something more rare.

I have actually seen his works of art on the Jay Leno Tonight show, the TV series Friends, as an art prize on a TV game show Shop Till You Drop, and the movie Escape from East LA. Some of his works are in the NSA Holmes Library.

The amazing art works of Harvey Prever are 8”x10” and 11”x14” in size, derived from same size masters, and are backlighted. The images are so life-like that full sized people appear to be actual miniatures. Additionally, it is possible to actually “stick your finger” into the image field itself. And because they are lighted from behind, these works of art can function in any lighting conditions, unlike laser holography techniques.

Even more important is that these three dimensional lenticular full color slide transparencies were actually being accomplished in the late 1940s to 1950s. The majority of his various works are from the early ’50s to the late ’60s.

During the 1970s Harvey went into semi-retirement, producing only religious icon art, mostly for a small group of South American dealers. I met him in the 1980s when he was 72. I had seen two from his entertainment industry collection and asked him to sell me anything he had remaining of it. He said I was the first person to ask him for the entire collection of eighteen pictures. He also sold me two very exceptional fine art pieces over the years, which he had never sold to anyone before. The last piece I acquired, in 1998, was the “Norman Rockwellish” 1958 “Family in Church”.

Unlike the mass produced plastic 3-D and particularly 2-D “change view” products on the market then and resurging today, Mr. Prever utilized lots of glass and each work is hand made. The screens were even manufactured by Harvey. This makes the final product a collectible rarity, not only for its backlight dimensional optical qualities, but also for the extremely low volume, accurate focus, glass delicacy and utilization of real photographic films.

There are only six complete, signed sets of the entertainment industry collection in existence and a very few fine art signed copies, plus possibly a few other
Following the failure of lenticular movie lobby displays to catch on in the early 1950s, Harvey Prever moved on to other areas. Much of his work involved advertising or religious topics, but he was obviously open to other subjects as well.

single pieces of which I am not aware.

Harvey met with 3-D experts from all over the world, including California, Massachusetts, Georgia, Illinois, Michigan, North Carolina, Texas, New York, Japan, China, England, Netherlands, France, Germany, Switzerland, and Canada. They all came to obtain information from Harvey, consult, or buy equipment. What is interesting is that none of these “experts” ever produced anything near the 3-D and photographic quality of Harvey’s product, that I am aware of. (Please prove me wrong. I would love to know of another source of high quality glass lenticular/photographic film art.)

As you might imagine, this process is not easy, especially for those unfamiliar with the techniques involved. The entire Prever production process is filled with proprietary secrets. Harvey’s daughter and partner have taken over his operation, and although they have explored newer methods, are presently attempting to reach Harvey’s original quality standards using his original methods.

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Journal of the Optical Society of America, H.E. Ives, A Camera for Making Parallax Panoramagrams
Journal of the Optical Society of America March 1931, H.E. Ives, Optical Properties of the Lippmann Lenticular Sheet

"Family in Church" (1958) added something of a Norman Rockwell flavor to one of Prever’s religious lenticulars, but without Rockwell’s gentle sense of humor.

CSC Gallery Book Now on CD

3D Gallery - Stereo Images by Members of Cascade Stereoscopic Club features stereographs by the members of CSC in Portland, Oregon. It is printed by professional color laser printer on high quality paper and includes the work of 46 club members. In addition, the book features 26 pages with articles on the history of the club since its inception in 1994, as well as articles about other pioneering club activities. Each member page contains a short biographical statement by its author and a basic description of the stereo images.

The first edition of the book was limited to 100 copies which sold out almost instantly, but a second edition is planned. The price is $20.00 plus $3.00 shipping in the U.S. For information on obtaining the book, contact Shab Levy, 6320 SW 34th Ave Portland, OR 97201, shab@easystreet.com.

The 3D Gallery CD is the electronic companion to the above book. The CD contains the full layout and contents of the book and is fully navigable. It is formatted in PDF and the Adobe Acrobat Reader is required to use the CD. (Acrobat Reader can be downloaded free from the Adobe site.) The CD is $10.00 plus $3.00 for shipping in the US. For details on ordering contact Shab Levy, 6320 SW 34th Ave Portland, OR 97201, shab@easystreet.com. The book and CD are published by Chameleon Enterprises, Portland, Oregon USA. Images and Text Copyright 2001 by Cascade Stereoscopic Club Inc.
The book is in English (one would assume there is a French edition as well), which I find quite surprising for something referred to as a museum catalog. I am quite happy that it is, however, as many interesting French publications about 3-D have never appeared in English. This should prove quite a revelation to English-only readers, as we tend to look just at the English printed history of 3-D, and therefore see it mainly as the work of English and American inventors.

Paris in 3D will certainly change that misconception!

The book presents more than a visual history of Paris using both vintage and modern stereo pairs (in black-and-white and color) and anaglyphs, it also presents a history of the many stereoscopic techniques used and pioneered in France. The quality of the images is stunning, and the various techniques presented reveal much that has not been documented before—at least not in English. One special treat is found in the section on tinted tissue views. To demonstrate the effect of illuminating one of these classic French views from both front and back, page 67 features a pull-out view in a pocket that goes from black and white (the image on a piece of film visible against a blank section of page) to intense, tinted color—revealed when the color image is pulled out from behind the blank section of page with the black and white transparency now added on top of it.

As a fan of lenticular images, I was especially interested in the chapter on "Lenticular screen systems and Maurice Bonnet’s process". Bonnet has been mentioned in numerous English books, but usually no more than a page is devoted to him, mainly covering technical points. This book has 22 pages that show many black-and-white and color examples of his work, showing previously unpublished photos from the collection of M. Bonnet’s daughter. (None are in lenticular format, but a few are presented as stereo pairs.) Included are photos of Bonnet himself, his

One of several Paris-made viewers illustrated in the book, this “Magic Album” folding book viewer by Saugrin was patented in 1862. SW contributor Denis Pellerin wrote three of the book’s historical articles.

(Roedema van Loon collection.)
An anonymous view from 1871 shows the burned out interior of the Palais des Tuileries. (See SW Vol. 25 No. 2, page 26.) The destruction during the days of the Paris Commune was widely stereographed, and several pages of images and text are devoted to it. Each of the book’s sections ends with a chronology summarizing key photographic, stereoscopic, social and political events for each of the years covered in the section—tying stereo developments into real-world history.

(Musée Carnavalet collection.)

family, and his fascinating equipment. I personally had the opportunity to visit the Bonnet lab at the Paris CNRS (National Center for Scientific Research) when it still existed, and saw some of the amazing equipment that Bonnet had perfected, and the spectacular results. The quality of the images produced by his cameras of the 1940s has not been surpassed by anything produced today. I am especially pleased to have a lenticular portrait of myself with Susan Pinsky and our two cats—taken by David Burder with a Bonnet 8” x 10” Portrait camera of 1950s vintage.

The book is divided into three numbered sections following an introduction covering human perception of 3-D and the basic technological and aesthetic matters involved. Each of the subjects in each section is by a different author, so a wide variety of specialized authority is presented.

Section One, “The Golden Age of Stereoscopy 1850-1880” covers the origins and development of stereoscopy, the photosculpture (an early multi-photo to solid sculpture technique that I had not been aware of), erotic images of the Second Empire, and a chronology of stereoscopic devices.

Section Two, “New Ways of Creating 3-D Images 1880-1940” includes amateur stereo photography using the example of the Stereo Club Français (which still exists today), the history of the anaglyph (which goes back a lot farther than most of us know about), Photostereosynthesis and line screen systems, French 3-D inventors from 1880 to 1940, and patents from 1852 to 1922.


All of this is concluded with sources, a bibliography, 3-D Glossary, and an Index. The quality of the images produced by the book and the images has to be seen to be appreciated. At a retail price of $75.00 ($60.00 at Amazon, (Continued on page 17)

“Stereoscope Workshop” by Saugrin (ca. 1862) is the view seen in the Magic Album viewer.
The vanguard of stereoscopic display experts gathered for the 12th Stereoscopic Displays and Applications conference January 23-25 in San Jose, CA. Presided over by Andrew Woods of Australia, these meetings are technical sessions devoted to the development of 3-D displays and are part of the Electronic Imaging section of Photonics West, sponsored by the Society for Imaging Science and Technology (IS&T) and the International Society for Optical Engineering (SPIE).

The opening day of Stereoscopic Displays and Applications started with several interesting videos and papers. One presentation involved high-speed digital stereo imaging at up to 1 million frames per second. The paper, given by D.R. Snyder of the Air Force Research Lab showed in nice 3-D the cutting of a playing card with a moving bullet in frame by frame anaglyphic detail. Some golf shots and breaking glass in stereographic super slow motion were also impressive. Lenny Lipton gave a great overview of 3-D projection and Vivian Walworth of the Rowland Institute spoke about polarization optics.

Another interesting paper was “Stereo Mosaicing from a Single Moving Video Camera”. This presentation involved stitching together frames taken from a video camera to make a 360 degree stereo panorama and was demonstrated in real time while the presenter was giving his paper. He simply waved a digital camera attached to his laptop computer in front of the audience and before our eyes produced an anaglyphic image of the audience on the projection screen in glorious 3-D.

In one experiment, 3-D imagery in a heads-up display for airplane pilots was used to de-clutter the control panel. It was popular with pilots except for the fact that the green phosphors of the display failed to extinguish soon enough to prevent ghosting with the included shutter glasses. Another involved a complex array of layering used to create a “Multi-media Ambiance Communication”. Images far from the viewer were presented in a panoramic non-stereoscopic method, middle distance images were layered and close-up images were rendered in 3-D from computer models. Human subjects were scanned from a whole body scanner and then made to fit a preformed model.

Other presentations included optimizing of polarization materials, field refresh rate issues, use of stereo imaging in treatment of ‘lazy eye’ and the development of a software toolbox (WinX3D) to help programmers provide stereoscopic support in their programs.

Later, 3-D videos were shown using the stereoscopic rear projection screen in the theater. They included: Kapo the Clown a 3-D ride film from EjeZeta in Spain, a new 3-D video title from Ray Hannah (Ray3D) called Not Your Average Ski Movie, a fire safety 3-D video titled Blazer in the Third Dimension from Media Odyssey in Australia and some 2-D to 3-D video conversions from Dynamic Digital Depth. Of a special note was a Korean 3-D Video called The Pearl Sea. This was a short drama about a pearl diver who leaves...
home to become a diver for a large public aquarium. This allows for many nice underwater shots interspersed with scenic terrestrial shots.

The second day of the conference was mainly concerned with autostereoscopic displays (3-D without glasses). Most of the early papers concentrated on improvement of head tracking capabilities in existing autostereoscopic applications. The team at NYU (New York University), the Korean Institute of Science and Technology, and the Electronic Visualization Lab at the University of Illinois in Chicago all went over refinements in this area. Sharp Labs in the UK went over improvements in their 2D/3D switchable parallax barrier that has the advantage of disappearing when not in use.

Several Korean University research teams went about the challenge using different approaches. Kyung-Wan University uses a reflective vibrating scanner array to isolate images and then play them back on a system using 8 separate hard drives. Seoul National University recorded and played back an integrated picture by first shooting through a lenticular system and then playing it back through a similar system.

Some of the more novel concepts detailed were volumetric display concepts. Actuality-Systems is working on a system which attempts to create interactive three-dimensional imagery by projecting a series of 2-D images on a rotating screen. The device, which looks like a spinning disc in a glass globe, will rotate as images are projected on it at 4000 frames per second. They felt it would be good for applications that do not require photo-realism. Unfortunately, the device was not ready in time to be shown at the conference. John Rupkalvis gave an enjoyable presentation entitled “Human Vision Considerations in Stereoscopic Displays”. Some of the concepts he touched on involved proper room lighting for stereoscopic presentations, flat vs. stadium seating (IMAX tends to be shot from a higher angle to account for the stadium seating audience position), and editing styles. MTV type quick edits are not recommended for stereo video because it takes people more time to process a stereo image than a flat image.

John Roberts, NIST (National Institute of Standards and Technology), detailed other issues important in stereo display usability. He recommended that there be guidelines for cross platform stereo applications and that perhaps even stereo theaters should adapt a certification system to insure consistent quality.

Later, a panel discussion on Standards in Stereoscopic Imaging was given. Michael Weissman of Karl Storz Imaging (stereo endoscopy) chaired, and Andrew Woods (Conference Chair and Photo 3D Member) and Dave Swift (VREX) gave presentations. Discussed were standards such as the VESA (Video Electronic Standard Association) standard for shutter glass connectors and standards for the video signal for those glasses.

The last day of this part of the conference started with a session on the problems of compressing stereoscopic images for Internet use. The morning presentations dealt with multi-view and 2-image stereo.

The conference’s keynote presentation took place on Wednesday afternoon. Jeff Kleiser, of KleiserWalczak Construction Company (KWCC), spoke of the work they have done in several stereoscopic productions. KWCC produced the stereoscopic computer graphics for the Phillip Glass/Robert Wilson production Monsters of Grace. He showed a several minute documentairy on the making of the Opera. It was produced with a 3-D background because the original plans for the set design involved a giant foot in the background.

Rather than truck around a giant foot for the productions, they felt it would be more expeditious to produce a stereo image of the foot. Later they decided that the backgrounds for the rest of the opera could also be done in 3-D. They used 70mm film because of the resolution it provided. Due to the slow movement of the backgrounds and Wilson’s feeling that extensive texturing was not needed for the effect he wanted to produce, photo-realistic images were not attempted. Later he showed slides of the images in the opera. Most were “behind the stereo window” because of the needs of the set designer. Several images were brought in front of the window but these were rare.

Later he showed the work that went into the production of Uni-
versal's "The Adventures of Spiderman" ride. This ride mixed 3-D projection with sensory effects (spraying water, wind...) and props. It is a moving (mobile) ride that attempts to put the rider in the midst of a cartoon. (See SW Vol. 27 No. 1 for more information about this production).

He also discussed the extensive testing that was done in deciding where in 3-D space (how far through the stereo window) some objects could go without causing discomfort. They did this by "pulling people off the street" because over time most of the people who worked on the graphics would increase their accommodation of stereo images and hence tolerate more separation than most people. For those not lucky enough to have already visited the ride in Florida, some actual 3-D video footage from the ride was shown on the conference's large 3-D rear projection screen. Kleiser also discussed a new 3-D production they are currently working on for Busch Gardens titled Corkscrew Hill. He also demonstrated some of their non-3-D work, including some special effects for the feature length movie X-Men and a children's book adapted into a short cartoon.

Demonstration Session

After the Keynote presentation, the much anticipated demonstration session took place. This included autostereoscopic, active, and passive 3-D displays, 3-D cameras and other technologies. Unfortunately, none of the people who presented at the Autostereoscopic presentation the day before had demonstrations available. So goes the "proof is in the pudding" expression. Some of them mentioned having displays available at Comdex but nothing presented was shown here.

Passive 3-D Displays

John Rupkalvis of StereoScope International showed a simple but elegant viewer for a two video camera 3-D system that employed a half-silvered mirror, 2 TV monitors and linear polarizers. This allowed the viewer to use conventional polarized glasses to view the resultant 3-D video image in a mirrored viewing box in real time.

Stereojet had their display of Stereojet prints available for viewing. Significantly, the price for these has recently been reduced and they are now realistically in the range of most stereographers ($50 for an 8 x 10" print).

Dynamic Digital Depth had examples of their streaming video content (aimed at internet users) in anaglyphic format. See: www.stereojet.com.

Active 3-D Displays

1-0 Display Systems displayed their various shutter glasses, camcorder attachment and new 3-D CD-ROM titles. These included some Mark Blum titles and Sports Illustrated Swimsuit in interlaced 3-D.

Shown for one of the first times in the U.S. was the dedicated 3-D lens attachment made by Canon for its XL-1 video camera. It's an interchangeable compact zoom lens for the XL-1 digital video camcorder that enables the recording of three-dimensional images. The 3-D zoom lens (Equivalent to 54mm-162mm in a 35mm still camera) incorporates a focusing unit that uses triangulation to measure the distance to the subject and a motor to adjust the mirrors inside the left and right lenses accordingly, enabling the angle of convergence to be set automatically. (Manual over-ride is included for both convergence and focus.) They believe the lens will retail for about $6500 (The camera is $4,000 with a 2-D lens, $3,000 with no lens). It should be available this year. See: http://www.canondv.com/x11/3d lens/concept.html.

VREX was present and gave its first public showing of its DLP based stereoscopic video projector. The projector displayed a 120Hz field-sequential 3-D image and was viewed with wireless LC shutter glasses. Source material for the projector came from a field-sequential 3-D DVD. Rumor is that a new version of Depth Charge will be available and later a new DepthCharge Developer Studio. See: www.vrex.com.
Autostereo

Several autostereoscopic displays from Dimension Technologies Inc. of Rochester, NY were on show. These displays are similar to the lenticular systems that have been widely displayed but are based on a slightly different technology called parallax illumination. One of the displays was demonstrated using a computer slide show. It had an LED that would go off when you were in the correct position to see 3-D. The other display was attached to a stereomicroscope.

Microscope Attachments

Two companies were present showing their microscope accessories for viewing three-dimensionally through a microscope. Edge 3D Imaging of Philadelphia had its Microscope Accessories for Direct-View 3-D Imaging. They used a special light source to allow for stereo viewing using oblique and dual oblique imaging.

Digital Optical Technologies presented their microscope that provided for optical conversion of mono-path high magnification microscopy to dual-path stereoscopic video microscopy. They have partnered with Issee3d, Leica and DTI to integrate the technologies involved. One of their microscopes was demonstrated using a CRT display and shutter glasses and the other microscope was displayed using a DTI autostereoscopic display.

Miscellaneous

The University of Jerusalem demonstrated a system for capturing stereoscopic panoramas using a

(Continued on page 27)
Dimples and Chads of the 2000 Stereo Vote

Some say that the days following the holiday season and the beginning of the New Year are a good time to take stock of what we are doing. This does seem to be the case in the Stereoscopic Society because that is when I begin receiving, over a period of several weeks, annual summaries of activities from most of the folio circuits. This results in my listing the most voting points over the calendar year along with recognition of those pictures which garnered the most support in the voting. However blasé we may act, nearly everyone takes satisfaction in seeing his/her name listed among those who have done well. It adds punch to any hobby when other enthusiasts favorably recognize one's efforts, and having it listed publicly for everyone to see makes it even better. I feel that is an important responsibility for this column to carry out and am happy to do it.

One may think that it is a relatively simple matter to say which stereographers did the best in the voting and which pictures were well received. But, there is much more involved than first meets the eye when this is applied to a postal circuit. Recently a vigorous discussion of this business was carried out among the more vocal Society members via the Internet. It raises anew questions that date back to the origins of the Society and never have been nor ever will be resolved—at least to the satisfaction of everyone. The matter at hand has to do with the role of voting and/or competition in the folios and the Society at large. How important is it? How do we interpret the meaning of the results?

Prime Directive

In the beginning, more than a century ago, the founding members were united by a love of three-dimensional images, the desire to create their own versions, and the joy of sharing them with others of like mind. I do not really believe this has changed all that much. If we have a Prime Directive in the Society, that must be it. It is not a competitive activity in the formal sense—indeed many make a strong case against that possibility. Our objectives are to learn and to grow, and to experiment and develop new techniques, and to adapt the changes that are constantly occurring in photography to the making of stereographs. Still, when an impressive stereo view comes along or a member is consistently turning out commendable work we like to pause and recognize it. From the earliest days there were pressures to vote on folio entries after viewing and commenting on them in the usual manner. Folio secretaries acceded to the demand. The most common method (and I still feel the best for the circumstances) was to list 1st, 2nd, and 3rd places—if one chose to vote at all (it was never compulsory). The Secretary would tally the results periodically. No Secretary is forced by the Society to honor a particular method of voting, or any voting at all. They are doing the extra work and must be comfortable with the system chosen. New Secretaries have often changed an old system so it is more suitable to their situation.

What's Fair?

First let me note that no two members ever vote on exactly the same set of entries. That is not possible without changing the entire nature of the postal folio. Also, when one periodically tallies voting totals, various pictures will have been traveling for differing lengths of time. Not every member will have had the opportunity to see every current entry. So just take it for what it is worth—and not too seriously. The law of averages even things up over the long haul. In my experience and observations of many years, the top workers and the finest pictures always seem to end up doing pretty well (by whatever method we try to count the dimples and chads). Basically, the nature of the Stereoscopic Society has not put the competitive aspects at a very high priority.

Competitions Galore

Not that anyone is being slighted. There are currently more than a dozen international stereo exhibitions, carrying Photographic Society of America approval, in which the serious competitors among us can square off against each other. Many Society members take part in these—in deed; the Society sponsors an open Stereo Card competition due to the initiative of some of the Print Circuit...
leaders. PSA star ratings can be earned in all of these events.

All together, I think this gives us a pretty good mix. The stereo shooter community is a friendly bunch, which hasn’t always been true among photography groups where egos can tend to clash at times.

**Alpha Transparency**

Our oldest Folio Circuit, which circulates stereo views in Realist format, reports that the top point getters for year 2000 were:

1st: Steve Trynoski (69 pts)
2nd: Steve Petit (49 pts)
3rd: George Themelis (47 pts)
4th: Naoma Roe (46 pts)
5th: Walter Wolfe (39pts)

The three top scoring individual views were:

- "Shallow Rapids" by Steve Petit (28 pts)
- "Trout Fishing in Wyoming" by the late Miles Markley (17 pts)
- "Glass" by Jonathon Gross (16 pts).

**Gamma Transparency Circuit**

Gamma Circuit also circulates stereo views in Realist format. For Y2K the five top vote getters were:

1st: David W. Kesner (128 pts)
2nd: Paul Talbot (74 pts)
3rd: Allan Roe (71 pts)
4th: Tom Hudson (44 pts)
5th: LeeRay Kuipers (35 pts)

The top rated views were:

- "Ice Cauldron" by David Kesner (36 pts)
- "Japanesse Garden" by Allen Roe (33 pts)
- "Northwest Forest Stream" by Paul Talbot (28 pts)
- "Sunset on Mt. Rainiers" by David Kesner (25 pts)
- "The Chateau" by Paul Talbot (21 pts).

**Speedy Folios**

The "Speedy" group of print folios are all guided by Secretary Bill C. Walton. So that an entry can travel around the route list in about three months the enrollments are limited to 12 members per circuit, usually. Speedy Alpha has now attained its majority, having just celebrated it 21st birthday, during which time the original box has visited my house 83 times as of this writing. Ten years ago a second box was added to the circuit and this relative newcomer has been here 37 times. Picture quality in Speedy Alpha has been out-

standing. The circuit is the oldest continuously operating print folio circuit now flourishing in the Society. Below are the voting leaders for year 2000:

1st: Ernie Rairdin (88 pts)
2nd: Bill Patterson (47 pts)
3rd: Brandt Rowles (40pts)
4th (tie): Team Thompson (36pts)
Mary Carpenter (36pts)

Favored views were:

- "Cupolas" by Ernie Rairdin
- "Readin, Ritin and Rithmetic" by Eileen Bohman
- "Presque Isle #2" by Bill Patterson.

**Black & White**

Two of the Speedy folios are reserved for black & white print photography, Folio Mike and Folio Keystone. There is still more interest in this format than one would imagine and some really fine monochromatic views are seen in these circuits.

**Speedy Mike's top photographers were:**

1st: David Lee (22 pts)
2nd: George Freeman (21 pts)
3rd: Phyllis Maslin (16 pts)

The favorite views were:

- "Bridal Veil Cascade" by David Lee
- "Anticipation" by Phyllis Maslin
- "First Snowfall" by George Freeman.

**Speedy Keystone's top photographers were:**

1st: David Lee (62 pts)
2nd: Stan White (37 pts)
3rd: Jonne Goeller (15 pts)

The favorite views were:

- "Half Dome from Mirror Lake" by David Lee
- "Wood Lot Near Sheffield" by Stan White
- "Making the Rounds" by Jonne Goeller.

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**A Grand Paris History of and in 3-D**

Continued from page 11)

Borders or Barnes & Noble.com) it may seem a bit expensive, but it is well worth the price for anyone who collects books on the history of 3-D photography, images, and equipment. The extensive scholarship presented would probably not have been possible in a popular publication. Only a museum, with extensive government and corporate sponsorship, would have the resources to compile, edit, and produce such a unique volume.

My only criticisms are minor, but should be noted. While there is an impressively large number of side-by-side stereo pairs presented for viewing with the included viewer, there are also many interesting stereo views presented in a very small size. They are just big enough for the hard-core stereo enthusiast to fuse the tiny 3-D images, but they could have just as easily have been reproduced larger without adding too many pages to the book.

After reading for a while, I also found that the choice of type font for the book is unfortunate for those of us old enough to require reading glasses, bi, or multi focal prescriptions. It is a san serif face of the very "light" category. A slightly bolder choice would have been much less of a strain to read.

An "inside source" informed me that he thinks the publication run was 14,000 copies. I have no idea how quickly this sort of quantity will sell on such a specialized subject, but I strongly suggest, if this sort of thing interests you, that you get your copy now. Once they are gone I guarantee this will eventually become a collectible on a par with Valyus, Judge, and many of the other classic and rare 3-D books.
Several years ago I acquired an original letter written by the famous landscape artist Albert Bierstadt in April, 1871. In the brief message he invited Major General Dix to an “urgent meeting to discuss the best method of entertaining His Imperial Highness, the Grand Duke Alexis of Russia during his visit in this country.” I had not heard of Alexis (fig. 1) and was naturally curious about him and where he had traveled while on tour. My obsessive search for information culminated when a book dealer provided an attractive reprint of an extremely rare volume, *The Grand Duke Alexis in the U.S.A.*, which answered many of my questions. Compiled by William Tucker in 1872, shortly after the tour, it contained a day-by-day and city-by-city account of Alexis’ itinerary drawn from newspaper articles. Since that discovery, I have amassed a visual record as well, in a number of stereoviews and portraits taken by various photographers at points on the tour. Between October, 1871, and February, 1872, the Grand Duke’s travels took him through several eastern states, north to Montreal, as far west as Denver, then through the American South before departing for Cuba from Pensacola, Florida.

The tour was arranged for Alexis Alexandrovich Romanov, fourth son of Russian Czar Alexander II. This handsome bachelor and offi-

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*Fig. 1. The Grand Duke Alexis of Russia with bison tail trophies. The pistol at his waist may be one of a pair of revolvers presented to him at the Smith and Wesson factory. Photo by Scholten, St. Louis. (Author’s collection)*
cer in the Royal Navy was only twenty-one when he was sent by the Emperor as his ambassador to foster good will and continued trade between the two countries. The U.S. was grateful for Russia's support of the Union during the Civil War, and the subsequent purchase of Alaska had brought further harmony. In appreciation the nation went all out to show Alexis the ultimate in American hospitality.

Albert Bierstadt was among several prominent New Yorkers who made arrangements for the Duke's official visit. Their efforts were successful from the first festivities, marking the arrival of the Royal fleet in New York Harbor, to the grand parade up Broadway (fig. 2) followed by lavish dinners and societal balls honoring His Highness.

Alexis undoubtedly enjoyed his tour through the eastern states. He was enthusiastically welcomed at every stop, whether rain or shine. Crowds—sometimes numbering in the thousands—turned out to greet him, while bands played the Russian National Anthem. He exuded a royal presence, spoke fluent English, and exhibited a flair for flirting with the ladies. When he wasn't visiting with dignitaries (fig. 3), he toured Philadelphia's Baldwin Locomotive Works and the Smith and Wesson gun factory in Spring-
field, Connecticut. Both companies were providing equipment to Russia. He reviewed the cadets at West Point and examined rare Russian volumes in the library at Harvard. Escorts guided him through steel plants, grain elevators, and carpet mills (fig. 4). He arrived in Chicago a couple of months after the city's devastating fire. The destruction so overwhelmed him that he made a donation of $5,000 to the mayor's relief fund. The Duke also played tourist, and photographer Charles Bierstadt, Albert's brother, made a stereoview during the royal visit to Niagara Falls (fig. 5). He found time, as well, to sit for some of the most prominent photographers. In New York, Brady, Sarony, Fredricks, and Gurney published his portrait for the throngs who wanted mementos of the Duke's visit. In the evenings President Grant and other prominent Americans toasted their royal guest and the future of U.S.-Russian cooperation. When the east coast leg of the tour ended, Alexis eagerly looked forward to the most anticipated event on his schedule: a grand buffalo hunt on the plains of Nebraska.

Months in advance of the Duke's arrival, Bierstadt had been aware of his desire to hunt buffalo.
He conceived and laid the groundwork for the hunt and on July 3 wrote to General William T. Sherman for assistance:

You are doubtless aware that the Grand Duke Alexis of Russia is to be here in October, and I have learned that he is quite desirous of witnessing a Buffalo Hunt. As his visit partakes of a somewhat national character, would it not be well to give him one on a grand scale, with Indians included, as a rare piece of American hospitality?

If a large body of Indians could be brought together at that time, say the latter part of October, the performance of some of their dances and other ceremonies would be most interesting to our Russian guests. This would probably be the only way to give them a correct idea of Red America. Some of the best Indian hunters might go with the party on the buffalo hunt, to show the aboriginal style of "going for large game." The herd could be driven up at the proper time within searching distance of the railroad.

It would add very much to the happiness and well being of our guests if you could find time to accompany them in person. In default of that it might accord with your views to delegate some officer of rank, as Sheridan for instance, in your place. This visit of the Grand Duke should be made a matter of no ordinary attention, as it has clearly a more important meaning than the mere pleasure trip of a Prince.

President Grant ultimately directed General Philip Sheridan, an old hand at staging such events, to take charge of arrangements for the granddaddy of all buffalo hunts. On January 13, a special Union Pacific train rolled into North Platte Station, Nebraska, carrying the Russian nobility, General Sheridan, and General George Custer, the Duke’s official escort. There they hooked up with their guide William F. Cody, who at this point in his life had gained fame as “Buffalo Bill,” and with a host of prominent military officers such as Generals Ord, Palmer, and Forsyth. This sizeable retinue of about 500 participants, including two companies of the Second Cavalry and its regimental band, left immediately for “Camp Alexis,” already set up 50 miles south on Red Willow Creek. To give the Duke a taste of “Red America,” a friendly chief, Spotted Tail, was induced to bring his best Sioux warriors to the hunt, where they showed off their hunting skills and added color to the event with their native ceremonial customs.

The hunt consumed two full days, January 14 and 15, across the snowy Nebraska landscape. Herds of buffalo roamed within 15 to 20 miles from camp. Custer, Cody, and the entourage worked out a plan for approaching the buffalo and giving Alexis the opportunity to bring down the first kill. The Duke was an expert horseman and quite adventurous, but in the excitement and eagerness of finally riding among a live thundering herd, he neglected to follow all the advice given him by Custer and Cody. Eventually, after borrowing Cody’s horse and rifle, he managed to drop the first animal and let loose a victorious round of whoops and hollers. Following tradition he sliced off the tail and passed the bloody appendage from man to man. A wagon of champagne and
caviar was then brought up from the rear, and the hunters indulged in the first of many toasts. The hunt continued from one herd to the next, and the entire party joined in a "free for all" slaughter. The Duke bagged several buffaloes during the two-day romp.

Back at camp the hunters feasted on a variety of wild game. Evenings were spent around the campfires offering congratulations and telling Wild West yarns for the benefit of the Duke. Spotted Tail's band entertained the party with war dances and mock battles, then wrapped up the show by passing the ceremonial peace pipe. In return Alexis presented the chief and his warriors with colorful blankets and a huge bag of coins.

The first evidence that the event was recorded for posterity appears in Tucker's compilation covering the second day of the hunt as the Ducal party prepared to travel back to the hunting grounds: "When the party were mounted this morning, and the grand cavalcade was ready to move forward, an enterprising photographer, who had arrived in camp, took a picture of it as it stood with the Grand Duke, General Sheridan, and General Custer at the head, followed by the remainder of the Imperial suite, the officers and soldiers, and the great Indian Chief Spotted Tail and his band of experienced warriors."
Many articles have been written about this famous hunt in recent years, but none have dealt with the rare and seldom-seen stereoviews taken at Camp Alexis. One contemporaneous report in the *Nebraska Intelligencer* of January 16, 1872, mentioned: "Mr. Eaton, artist, of Omaha, took some views of the camp, the hunting party, the Duke, Spotted Tail, and other groups, and has received Alexis' order for several hundred copies of each."

The series appears to be limited with No. 7 being the highest numbered caption identified to date. Each stereoview bears E. L. Eaton's imprint (fig. 6). The views referred to in Tucker's statement most aptly show the groups depicted in captions numbered 1 and 2 (figs. 7 and 8).

The photographer is mentioned again in Tucker as the exhausted hunting party made their preparations to depart Camp Alexis on the morning of January 16 and to return to the train:

Before leaving the camp several photographs were taken by the enterprising artist. They will be interesting souvenirs, especially to the Imperial members of the party who participated in the hunting expedition with General Sheridan and His Imperial Highness. One large view was taken of the party as they sat at breakfast. Pictures were also made of the camp itself, and among the others which were taken by request of the Grand Duke were those of Buffalo Bill and General Custer in his buckskin hunting dress.
No image has been seen of the party actually seated at breakfast. The pictures of the camp are likely stereoviews numbered 3 and 4 (figs. 9 and 10). General Custer is pictured in view number 6 along with Spotted Tail (fig. 11). A caption on a reused mount denotes view number 5, “Buffalo Bill mounted,” yet an image fitting that description has not been seen. Captioned views 1 through 6 show outdoor scenes at the camp. There are at least five variant portraits of Cody that fit into the series, yet these were taken inside a structure that does not fit the descriptions of tents at the camp. One of these, number 7 (fig. 12), is simply captioned, “Buffalo Bill,” and shows him standing with a friend, Professor Henry A. Ward, a prominent naturalist, educated in geology, zoology, and taxidermy. He became the foremost provider of fossils and animal skeletons to museums across the country. Ward arrived in Nebraska too late to go on the hunt but was there when the party returned to North Platte Station. He carried Alexis’s buffalo heads back to Rochester, mounted them, and prepared them for shipment to Russia. The four remaining portraits of Cody were taken at the same time. One again shows him standing with Ward; the others show him alone, standing and sitting (fig. 13). Portions of posing stands appear in three of the
Upon the Grand Duke's return to Russia, his father, the Czar, awarded Albert Bierstadt a medal, the Order of Saint Stanislaus, for his efforts in planning the hunt.

Alexis apparently returned to Russia with numerous copies of Eaton's stereoviews. Whether he hired Eaton to take the photographs, or whether Eaton merely seized upon a commercial opportunity isn't known; but the journalistic photography provides us with the only visual record of this famous western event. The photos not only satisfy our natural curiosity in looking at the past, but also allow researchers to glean specific information from them. For instance, some of Eaton's views show glimpses of terrain surrounding Camp Alexis. These have aided Douglas Scott of the Midwest Archeological Center (National Park Service) and Peter Bleed (University of Nebraska) in determining the location and orientation of the camp. Mr. Scott's prior investigation of the Custer Battlefield gave us new insight into the events that unfolded on that fateful day in 1876. Perhaps a future examination of Camp Alexis will reveal new discoveries as well.

**View List**

Stereoviews related to the buffalo hunt for the Grand Duke Alexis: Photos by Edric L. Eaton, Omaha (numbers are Eaton's caption numbers).

**Taken at Camp Alexis:**

- No. 2. The Grand Duke, Admiral and Russian Officers, with Spotted Tail and Eight Chiefs.
- No. 4. Spotted Tail's Head Quarters, with Favorite Squaw and Daughter.
- No. 5. Buffalo Bill mounted. [caption only - image not seen of Cody on horse]

**Location not certain (probably Eaton's studio):**

- No. 7. Buffalo Bill. [with Prof. Henry A. Ward - both standing]
- No. 8. Buffalo Bill. [variant with Prof. Henry A. Ward - both holding rifles]
- (?) Buffalo Bill seated with rifle on lap. Two variant images - usually captioned No. 5, Buffalo Bill mounted
- (?) Buffalo Bill standing holding rifle. Usually captioned No. 5, Buffalo Bill mounted.

**Sources**


Bierstadt, Albert. To William T. Sherman. 3 July 1871. Bierstadt Letters, Manuscript Division, LC, Washington, D. C.


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Eros in Depth

The late geologist and comet hunter Gene Shoemaker (who died in a 1997 car accident while on an annual study of impact craters in Australia) had said he wanted to tap a rock hammer on the asteroid Eros. After his death NASA renamed the NEAR spacecraft, on its way to study the asteroid, “NEAR Shoemaker”. On Monday, February 21, 2001, the spacecraft touched down on Eros after completing its mission, giving the 21 mile long rock a very real and widely covered “tap” with the 1700 pound spacecraft named for Shoemaker.

During its final descent, NEAR Shoemaker took a number of photos of the surface of Eros, but apparently no stereo pairs were possible due to the rapidly changing images. But several particularly good stereo pairs were obtained from NEAR Shoemaker in September, 2000, showing the “Saddle” feature on Eros in a variety of aerial hyper separations. Flat images from the spacecraft received wide (if brief) media attention, but this stereoscopic gem revealing the curving, textured surface of this massive asteroid deserves more appreciation.

The Saddle in 3-D. On September 19, 2000, NEAR Shoemaker took a “rotation movie” from an orbit 100 km above Eros. Several frame pairs were rotated to compensate for the combined motions of Eros and the spacecraft, then presented as stereo pairs and anaglyphs on the web site http://near.jhuapl.edu/iod/archive.html. The images all show the same area but use two movie frames separated by increasing amounts to give greater 3-D depth (from not enough to too much). The first image in the upper left has no depth; the image at upper right is made from adjacent movie frames, while the remaining images are separated by 2, 5, 10 and 15 movie frames.

The five-frame separation pair of the Saddle feature on Eros from orbit.
2001 International Stereo Exhibitions

- June 9: Third Cascade International Exhibition of Stereo Photography. Last year, the Cascade Stereoscopic Club was the first group in the PSA Stereo Division to offer the option of entering stereo views in the Electronic/Internet/Digital section in addition to the classic Slide and Card sections. Details and forms: http://www.cascade3d.org, 6320 SW 34th Ave., Portland, OR 97201-1082. Slides, Cards, Electronic, North America & Other, $7.

- June 14: 38th Annual PSA Stereo Sequence. H. Lee Pratt, 107 Kipper Lane, Madison, AL 35758-7706, leepratt@knology.net. Slide sequences, North America and others $10.

- June 15: 6th View-Master International Stereo Sequence Exhibition. Lawrence Kaufman, 1607 Mariposa Dr., Corona, CA 92879-1121, kaufman3d@earthlink.net. VM reels, USA $7, others $9.

- July 12: Stereoscopic Society of America International Card Exhibition, Bill C. Walton, 3739 Meadowlark Dr., Columbus, GA 31906, bill3d@leo.infi.net. Cards, North America & others, $7.

This column depends on readers for information. (We don't know everything!) Please send information or questions to David Starkman, NewViews Editor, P.O. Box 2368, Culver City, CA 90231.

- Bruce Hansen

A 2x2 Invitation

If you shoot 35mm stereo slides, either with one or two cameras, I would like to extend an invitation to you. We are an active group of 3-D photographers who use the dual 35mm format and share views in the Stereoscopic Society's 2x2 slidefolio. If you join our group, you will be able to see the work of some very talented photographers, as well as share your work with us. Whether you are a beginner or professional please join us. You will receive a box of views approximately once a month. Each time, you add a new view and remove your old view. The other members will comment on your views, and you will do the same for theirs. If this sounds like fun, please contact: Shab Levy, 6320 SW 34th Ave Portland, OR 97201 USA, shab@easystreet.com.

Stereo 3Ders Lawrence Kaufman, Andrew Woods, Michael Georgeoff and David Lee show off their smiles and cameras.

Stereoscopic Displays and Applications XII (Continued from page 15)

single camera (as per their paper presentation). Communications Research Centre Canada demonstrated a stereoscopic MPEG transmission system with a stereoscopic video camera and a 120Hz alternate field 3-D display.

Another first at the show was the NSA table where complimentary back issues of Stereo World were available. The table was well noticed and many attendees of the meeting took home copies of the magazine. The area was also a good meeting place for participants of the Internet 3-D discussion group Photo 3D. Present were Lawrence Kaufman, David Lee, Lawrence Haines, Andrew Woods, Michael Georgeoff, John Toeppan, and John Rupkalvis.

A new feature of the meeting was a collection of selected papers previously given on Stereoscopic Displays and Applications on CD-ROM. This two-volume set has a wealth of information on all the conferences between 1977-2000.

Overall, the show was a very good overview of what is happening today in stereoscopic displays. It was great to get caught up on the cutting edge of 3-D displays and meet the pioneers and driving forces behind the 3-D industry today. For more information on the meeting please see the conference website at www.stereoscopic.org.

Steve Berezin is President of the Stereo Club of Southern California and owner of Berezin Stereo Photography Products (a supplier of 3-D books and viewers). He can be contacted at 21686 Abedul, Mission Viejo, CA 92691, www.berezin.com/3d or 3d@berezin.com.
Nearly 200 years ago an expedition of 45 people lead by two extraordinary men—Commander Meriwether Lewis and Commander William Clark—began a perilous journey into uncharted territory. The job was to explore the newly acquired Louisiana Territory and Oregon Country. But this expedition went much farther than geographic exploration. They were also assigned the job of scientific and cultural observation. Gathering plant, animal and mineral specimens, studying native civilizations, recording weather data and establishing diplomatic relations with the tribes were all considered to be part of this dramatic venture. Their expedition has become an American legend.

To duplicate this trip today would seem to be an unimaginable feat. However, Charley Van Pelt saw it as something that needed to be done. To record the adventures of these two American heroes in 3-D would be something no other stereo photographer has ever attempted. Charley has been working for and with View-Master since 1947. His basic love of American history and his natural desire to share his love of 3-D photography set him on his own path of exploration and discovery in documenting the Lewis & Clark Trail.

Starting out at the St. Louis Gateway Arch memorial to westward expansion, Charley followed the trail of Lewis and Clark from Wood River to the Pacific Ocean and back again. The entire trip is brought to life through four different View-Master packets. Each packet depicts a different section of the trail. Packets are numbered one through four and will be released in order following the trail from beginning to end.

Vivid written descriptions of the various sites along the trail help illustrate the life and times of Lewis and Clark and their fellow travelers. Every packet will have a detailed brochure with appropriate information pertaining to the corresponding scenes on each reel. Each packet contains three reels/21 pictures. They are divided into four sections as follows:

Set 1: St. Louis, Wood River to Fort Mandan
Set 2: Fort Union to Lemhi Pass/Agency Creek
Set 3: Salmon River to Columbia River/Mt. Hood
Set 4: Columbia Gorge to Fort Clatsop. Return to St. Lewis

Charley's greatest challenge was trying to show the highlights of the trail as they looked 200 years ago when Lewis and Clark first encountered the same views. Many of the sites now have cities built upon what was pristine wilderness 200 years ago. Telephone poles, electric wires and interstate highways do not add to the sense of history Charley wished to portray. With each photo he tried to show the countryside as naturally as possible.
sible. To add to the story, various monuments are included along the trail, and exhibits using replicas help to add more of an overall feel for what life was like in the early 1800s.

Packet number one starts out at the Gateway Arch in St. Louis. It guides us through Missouri, Iowa and Nebraska showing monuments and historic sites as well as natural surroundings along the trail. A replica of Lewis & Clark’s keelboat is part of the display at Clark State Park in Iowa and winter scenes at Fort Mandan give us some idea of the conditions encountered by the original expedition.

Packet number two continues the excursion from Fort Union, North Dakota, along the Missouri River into Ft. Benton, Montana. As the wide Missouri bends it makes its way upstream to Great Falls, Montana. Continuing the trip we travel through Montana, across the Continental Divide and into Oregon on the way to the Columbia River. While most of this packet has scenic vistas, Fort Benton and the Lewis and Clark National Interpretive Center in Great Falls are also represented. Adding national historic sites and monuments along the trail show us what to look for as we explore this passage in modern times.

Packet number three takes us from Salmon River, Idaho, to majestic Mt. Hood and the mighty Columbia River. Much of Oregon is still pristine and looks as beautiful today as it did in the time of Lewis & Clark. Charley has captured much of the majestic scenery in this portion of the trail. Especially notable are the excellent photos of the Columbia River Gorge and breathtaking Multnomah Falls. As we know, Oregon was the home of View-Master for more than 60 years as well.

Packet number four gives us some idea of what Lewis and Clark must have felt when they had their first breathtaking view of the Pacific Ocean on November 15, 1805. That year, they wintered at the Oregon coast, building Fort Clatsop. A replica of the fort stands there today maintained by the National Park Service. Their return...
Trip began on March 23, 1806, and took six months to complete. These packets bring to life the feeling that you are traveling along with Meriwether Lewis and William Clark, their French guide—fur trapper Toussaint Charbonneau, his wife, Sacagawea (who gave birth to a son early into the expedition and carried him on her back the entire trip), and Clark's Newfoundland Dog Seaman.

What took over two years for Lewis and Clark to photograph also took two years for Charley to photograph. Here is what he has said about this undertaking in his own words:

I would spend a good part of the next two years reading, researching, and photographing the Lewis & Clark Trail in 3-D. But the project turned out to be more complex than I had first thought. The story unfolded in some locations that were not very "scenic"—and the weather didn't always cooperate (it didn't for Lewis & Clark either). Important parts of the story took place in settings that no longer exist—Ft. Mandan, Ft. Clatsop, and the keelboat. I photographed their replicas to illustrate the story. I also included dioramas and other manmade exhibits to fill in the story line and add emphasis. Monuments and the stories of the people and events they represented also become part of our story.

A special one-reel packet with seven scenes of the trip is available as well. This unique packet gives an overall portrayal of what is found in each of the individual packets. Starting with the scene of the Gateway Arch in St. Louis, it also shows the winter view of Fort Mandan, the white cliffs of the upper Mississippi River, the portage around Great Falls, Montana, the Three Forks of the Missouri River, Lemhi Pass through the Continental Divide and Fort Clatsop National Memorial Park. It will certainly whet the appetite for all four of the individual packets as they are released.

Armed with his hundreds of wonderful stereo photos and thousands of pages of research, Charley hopes to someday create a booklet of stereo images and text that will be a learning guide and reference to the scenes used in the four View-Master packets. If this project comes to pass it will include maps and other written material highlighting the exploits of Lewis & Clark.

As Lewis and Clark made history with their expedition into the American West, so Charley has made stereo history with his dedication in the pursuit of his dream in recreating their epic journey. This visual journey along the Trail of Discovery is sure to please 3-D fans of all ages.

For information on ordering or availability of the four sets of reels or the "preview" reel (either by mail or at the July NSA convention in Buffalo), contact Charley Van Pelt, 1424 E. Mountain St., Glendale, CA 91207, or visit: www.geocities.com/lewisandclark_vm.

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Cuba has been largely off-limits for ordinary U.S. tourists for a long time, making amateur photography (and especially stereography) of the island a rare phenomenon in that country’s closest neighbor. As part of a November, 2000, tour group with a firm called Cross-Cultural Solutions, NSA member Marshall Rubin spent nine days in Cuba equipped with a digital stereo rig of his own design: “...I used the occasion to extensively photograph in 3-D (of course) using two high-end Canon point and shoot digital cameras mounted vertically, side-by-side. Since there was no way to synchronize the cameras, I relied on my experience, and managed a success rate of about 75%....Once home, I enhanced the images in Adobe Photoshop on my computer, and then converted the stereo pairs into anaglyphs. Finally, I composed a detailed introduction, and put it all together for my CD-ROM..." 

A recent convert to digital cameras, Marshall has sold his RBT and looks forward to continued improvements in the resolution, price and flexibility of digital cameras along with the potential of a well engineered digital stereo camera and more reasonably priced digital projection systems. Currently, digital rigs of the sort he uses can provide good images for use on CDs or web sites. The debate over just how much resolution at what price (and using what storage medium) will be needed for a digital camera to match slides produced by a Realist goes on and on, but in the meantime an interesting body of digital work is accumulating, with Nine Days in Cuba a recent example.

The tour visited several areas in Cuba as well as Havana, including two days in the westernmost province of Pinar del Rio where a stop at the Sierra del Rosario natural reserve biosphere provided no end of stereographic opportunities. Once covered by coffee plantations, the area has been reforested by an ambitious government program that has earned United Nations recognition for the many species of plants, birds and reptiles living there. A natural cave with water-filled caverns (and tour boats!) is one of the area attractions little known in the U.S. but covered in the CD’s anaglyphs.

Unlike visitors to the exclusive Cuban beach resorts designed to bring in hard currencies, members of the Cross-Cultural Solutions tour visited schools, hospitals, art communities, neighborhoods and homes. But like any guided tour, this one clearly avoided most negative aspects of the local society—certainly no surprise in Cuba. Only those able to arrange months of independent travel and personal contacts have really been able to describe effectively the combinations of resiliency, cynicism, imagination, fear, patriotism, desperation and pride to be found among the Cuban people. Nine days is enough to get just a few hints of the complexity of Cuba, along with some great stereo that should make most who view them want to see more—or better yet, visit and take their own.

The text of Nine Days in Cuba is expressly critical of the U.S. trade and travel embargo, and some images show tour members donating medical supplies to the staff of a pediatric hospital. A 3-D CD-ROM that actually takes a political position is unusual enough that even some who strongly disagree with that position may want a copy. Whatever your feelings about U.S.-Cuba relations, the digital stereographs on Nine Days in Cuba are organized into easily viewed color anaglyphs with minimal ghosting or color interference. In a year that has seen even participants and planners of the Bay of Pigs invasion visiting Cuba and partying with people they once tried to kill, this stereographic CD is yet another opening into a long “off-limits” place.

To get the full impact of the intense tropical color, it would have been good if the CD had included stereo pair versions of the images as well as anaglyphs. It would also of course be better if such CDs were compatible with both Windows and Mac systems. Nine Days in Cuba is designed for Windows 95, 98, Windows Me or later. Recent Mac systems can show the images and text, but not in order or with the table of contents functions.
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Getting there 130 years ahead of NSA members who will visit Niagara Falls in conjunction the July convention in Buffalo, Alexis Alexandrovich Romanov, fourth son of Russian Czar Alexander II, saw the falls as part of his national tour that included a carefully staged buffalo hunt. This Charles Bierstadt view “His Imperial Highness, the Grand Duke Alexis, and Suite.” is from Jim Crain’s feature “A Royal Buffalo Hunt” on page 18.