3-D Imaging Past & Present

STEREOWORLD

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3-D Planetarium

Photo Interpreters’ Kit

London Stereoscopic Company Lives!
Our images this issue have their flaws, but I found them too interesting to pass up. They were taken by a Portland, Oregon-area photographer who apparently was a serious amateur or maybe even a professional photographer. In a bit of bad timing, I learned of the auction of his entire massive photographic estate a week after it had occurred in the late '80s! Fortunately, much of his equipment and images seemed to stay in the area, offered for sale by various local photographic dealers over the next few years, so I was gradually able to obtain a selection of his stereo slides. He apparently climbed several mountains in the northwest, making stereo images as he went. In fact, I found some beautiful 2x2 Kodachrome slide stereo pairs that he made with a couple of non-stereo cameras during a climb of Oregon's Mt. Hood in 1943! He eventually began shooting Realist-format images, and documented many scenic areas in the region in stereo.

These particular images were mounted on Realist heat-seal masks taped between glass. They are dated Sunday, August 19, 1956, and while they are labeled “Canada” and “Snowmobiles on Glacier”, they do not reveal the exact location. However, there is a popular glacier tour located between Lake Louise and Jasper, and I would guess that is where these images were made, especially since the signs on the vehicles read “Snowmobile Tours, Jasper Park.”

The first image shows a nice (if distant) grouping of the vehicles. What appear to be wheelwells on the front of these vehicles make me wonder if they were adapted from some odd-looking wheeled vehicles or if they were custom-made as snowmobiles from the start.

The second image was apparently made from the open top of one vehicle looking back at another as they climbed the glacier. (Sorry about the window violation!) A great view of the valley below can be seen where the tour began. 

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 97266.

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:
Cosmonaut Alexei Leonov starts the world’s first space walk (1965), in the “Dawn of the Space Age” 3-D planetarium show, projected on the full dome of the Imiloa Astronomy Center in Hawaii using the “Dolby 3-D” interference filtering concept. Details are revealed in “World’s First 3-D Planetarium Cleaves Colors” by John Dennis. ©Image3D 2008

Back Cover:
The London Stereoscopic Company premieres at 108 Regent Street in 1898. In this issue, the newly revived Company shares an exclusive preview of the long-awaited complete, on-line gallery of the “Scenes in Our Village” series. See “The London Stereoscopic Company Reborn!” by Brian May and Elena Vidal. Photo, City of Westminster Archives

The National Stereoscopic Association is a non-profit organization whose goals are: to promote research, collection and use of vintage and contemporary stereoviews, stereo cameras and equipment, and related materials; to promote the practice of stereo photography; to encourage the use of stereoscopy in the fields of visual arts and technology; to foster the appreciation of the stereograph as a visual historical record.

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Renewal is More Than A Word

My computer's thesaurus contains exactly 66 synonyms for renew. I was going to try to make myself look surpassingly erudite by picking a couple of the most obscure ones to use here, but since I couldn't even pronounce them, I thought better of it.

The point is, about two-thirds of the NSA membership recently received their annual renewal letter when they arrived at the point of having two issues remaining in their membership. The Post Office Box has been filled daily with the heartening response to these notices for a couple of weeks now, but some members who received letters have yet to renew. While it is technically true that you wouldn't miss any priceless issues of Stereo World if you put off renewing for another three months or so, you run the risk losing the renewal slip and return envelope in the meantime, and/or of forgetting about it completely until you notice an eerie emptiness in your mailbox!

Worse yet, we can't really plan a budget without a better idea of the renewal rate. With expenses from mail to ink growing steadily, this is a bad time for uncertainty. You can make a difference in the maintenance of the quality and growth of the magazine (to say nothing of the sanity of the staff) by renewing sooner rather than later, or at least as soon as you get that little yellow reminder card a couple of months after the unanswered letter.

Speaking of those reminder cards, please simply ignore it if you get one after you've already responded to your renewal letter. The cards are sent automatically to members reaching one or zero remaining issues by the mailing service. If your membership wasn't updated in time for the list they mail from, the cards and your renewal can easily cross in the system.

To those inspired to renew on reading this, let me offer the gentle suggestion of an added donation with your renewal. Donations in any amount are appreciated, prized, cherished and simply more important than ever. They literally help make these pages possible. (If this is starting to sound like an NPR Pledge Break, well, you're the one still reading...)

A Web View & A Rail Link for Your Stereo Date in 2008

Having seen some sneak previews of the variety of images and equipment to be found at this year's NSA convention in Grand Rapids, I can easily say that this is NOT one to let yourself miss. Those who initially thought that Boise was miles from nowhere should note that Grand Rapids is close to the center of everywhere, with the convention again located in a convenient and lively downtown area.

And, if you look up Grand Rapids on Wikipedia, you'll notice that the illustration above the text is a great 1885 Baldwin stereoview of Pearl Street in downtown Grand Rapids! The full view with mount is reproduced, the only city listing example like it I've found there. (Clearly a sign from cyber-space that Grand Rapids is THE place for stereo this year!)

Grand Rapids is served by Amtrak from Chicago via the daily Pere Marquette. If flying or driving have become too hectic and expensive, consider taking the time to relax with leg room and walking space better than a private jet. But make reservations soon (www.amtrak.com) as this year many trains are filling up faster than ever. ☢
John B. Cameron

Photohistorian John B. Cameron, Professor of Art History at Oakland University in Michigan and NSA member, died January 11, 2008, at 76 following a heart attack. His wife and colleague, Jan Schimmelman, was at his bedside. Readers will remember his scholarly and comprehensive feature “The Early Paper Stereographs of Claude-Marie Ferrier 1851-1861” in Stereo World Vol. 31 No. 3. We had looked forward to more such contributions from him.

The remembrance below appears with the kind permission of the author. It was posted on the January 12th PhotoHistory discussion group (Digest number 2140), by William Becker, who worked with John Cameron on the exquisitely illustrated and printed book Photography's Beginnings: A Visual History (University of New Mexico Press, 1990).

- Ed.

John’s zest for life, his giddy defiance of conformity, and his subservive sense of humor combined to make him a favorite of students. Their comments on a website for rating professors show just how much he was appreciated: some students confess that they took John’s Art History classes feeling quite certain about their distaste for the subject, only to be swayed by John’s enthusiasm and charm. He was still teaching a full schedule of classes at the time of his passing, having shown no interest in retirement.

John Cameron was born into a well-to-do family in Chattanooga, Tennessee. His mother died when he was young and John was raised by his Aunt Teti. His father packed him off to military school, then to Princeton. Despite being schooled in the Ivy League (his Ph.D. was from Yale) and living in France for more than a decade, John never lost his affection for his home town—or his Southern drawl.

John’s collecting interests were as eclectic as his personality: daguerreotypes shared shelf space with cast-iron windmill weights, architectural fragments, full-plate tintypes and antique bronze medallions. His academic research centered on Romanesque and Gothic church architecture in France, but he also published on photo-history topics. Most recently, he was working on a comprehensive catalogue of the glass stereoscopic photographs published by Ferrier and Soulier, basing much of this work on his extensive personal collection.

John also instigated and curated an exhibition marking the 150th anniversary of photography in 1989, drawn from my collection. He edited the accompanying book, Photography’s Beginnings: A Visual History. It was my privilege to have him as a friend and confidant.

I’m certain that a great many others will agree that the sadness of his loss is tempered by the memories of his quirky fondness for finely-tailored cotton shirts rescued from the Salvation Army, his cheerful insistence that “Socialism” would save us from moralizing politicians and bureaucratic administrators, his incomparable knowledge, and his ready laugh. John Cameron seemed ageless, and one for the ages.

- Bill Becker

Jack Naylor

Noted photographica collector Thurman “Jack” Naylor died November 26, 2007, at age 88. Mr. Naylor amassed one of the world’s largest private collections of cameras and related photographic equipment, housing it in a unique museum in his home in Chestnut Hill, MA. He was the only NSA member to have his collection featured in Smithsonian Magazine, a collection so large that after selling 9,000 items (to form the nucleus of another photography museum!) he continued collecting and soon had enough to refill his own museum.

His keynote speech to the 1990 NSA convention in Manchester, NH, related the stories behind the acquisition of some of the most rare items in his collection and included slides of stereo cameras and viewers not to be found in any other collections or museums in the world. (Busses took NSA members to tour his museum on two days during the convention.) One item pictured was a gold plated Leica Luxus from the early 1930s with red lizard skin covering and a gold plated stereo attachment. Mr. Naylor later contributed an article detailing the one-of-a-kind camera’s survival through World War Two’s fire-bombing and the Cold War years in Dresden, and its eventual sale in 1990 after many years of concealment in an unused chimney. (SW Vol. 19 No. 3, page 16.)

Jack Naylor was a leading member of the Photographic Historical Society of New England and helped interest people around the world in photographic history. His flair for promotion and his vast collection of unique photographic items earned the attention of the mainstream media on several occasions. Following a large auction in New York last October, the remaining Naylor collection was recently purchased by the WestLicht Photographica Auction of Vienna, according to the PHSNE snap shots newsletter. There is no word yet on how or when the items may be offered to the public.

- John Dennis

Correction

In the article “The 2007 Stereoscopic Display Conference”, (Vol. 33 No. 1), the photo on page 26 was labeled inaccurately. It identifies Michael Weisman with an unidentified participant. In fact it was Ed Lazarus of the Bristlecone Corporation at the demonstration session showing Michael Weisman their (then) patented technology RetrOOpis with a Kaps Stereoscopic Microscope equipped with a Zeiss Splitter and two specially equipped cameras, being viewed on a DTI Monitor. This patented technology subsequently was acquired by Michael Weisman’s firm.

- John Dennis
The London Stereoscopic Company Reborn!

by Brian May and Elena Vidal

We are happy to announce the launch of a new website entirely dedicated to Victorian stereo images, created by Brian May and Elena Vidal. The site, at www.LondonStereo.com, aims to be an enjoyable resource and research tool, centered on the output of the 1850s London Stereoscopic Company (LSC), and, in particular, the work of T. R. Williams. Many readers of Stereo World will be familiar with the name "London Stereoscopic Company"; here is a brief résumé of the company's history.

A Brief History of The London Stereoscopic Company

Some time in 1854, at 313 Oxford Street, the "London Stereoscope Company" (note: 'stereoscope') was born, and by 1856, under the leadership of Managing Partner George Swan Nottage, the company had changed its name to "The London Stereoscopic Company", and was also operating from premises at 54 Cheapside. Their business was selling stereo views and viewers to the public, and they were leaders in a boom—a craze—which swept England, Europe, and eventually the United States too, of stereo photographs of every conceivable subject. These images, viewed by means of a stereoscope, presented scenes in lifelike three dimensions; in a world which had never experienced television, the movies, or...
"Return from Shooting" by T. R. Williams from the "First Series". This card shows two blindstamps; at lower left, the T. R. Williams logo—"T.R.W. PHOTO", and at top left, a relatively rare early LSC elliptical blindstamp. It's not easy to read from the front of the card, but a scan of the back of the card (cunningly laterally reversed) clearly shows that it says, not the "London Stereoscopic Company", but the original 1854 title—"LONDON STEREOSCOPE COMPANY - 313 OXFORD STREET". (See the upper left sample in the group of identifying LSC marks.) Brian May collection.

the Internet, this was understandably a revelation. Business grew rapidly. On 13th October 1856, The London Stereoscopic Company advertised, in The Times, among other things, "... 10,000 lovely Waterfalls, Lakes, Glaciers of the most exquisite and sublime character!" By 1858 they claimed to have 100,000 views available.

Much of the operation of the LSC in its early years is still shrouded in mystery, and its relationship with the pioneering photographers whose work it published remains unclear, but among their first publications was the work of T. R. Williams: the "First Series", his "Crystal Palace" (1854) series, and his most famous work, "Scenes In Our Village", all photographed in the early 1850s. It is noteworthy that in the advertisements, the name of T. R. Williams never appeared.

Fine English landscapes, by Sedgfield, Grundy, Poulton and others featured strongly in the LSC catalogue in this period, (again, without any credits) along with editions of French glass stereo

"Cock and Fox" by T. R. Williams, from his "First Series". By way of comparison, here is another T. R. Williams view, beautifully hand-tinted, from the same series, and presumably published a little later. This one bears a "London Stereoscopic Company" blindstamp, with a 'stretched octagonal' outline, and the address of another LSC branch in the 1850s, 54 Cheapside. This card has no identification relating to its photographer. Brian May collection.
slides, mainly landscapes, and, following T. R. Williams' example, some fine 'sentimentals'. Today's collections of stereo cards from the middle to late 1850s, by photographers such as James Elliott, Alfred Silvester, Mark Anthony, Charles Goodman, and many others, always contain examples bearing the familiar blindstamps of the LSC. In May 1859 the LSC assumed the name it was to retain for years to come: "The London Stereoscopic and Photographic Company", reflecting the wider range of products that the company was now embracing. During this prosperous period, a new outlet was opened at 110 Regent Street, later occupying 108 and 106 too.

In the 1860s, one of the LSC's notable publications of stereo cards was a long series, photographed by William England, depicting the interior of the 1862 International Exhibition, in what is now Exhibition Road, South Kensington. The Company, in fact, had the exclusive rights to photograph the Exhibition. But the full range of subjects offered was enormous, and landscapes, 'sentimentals' and portraits of famous people were all very popular.

When the stereo card craze faded during the late 1860s, the company appears to have continued to do a healthy business, catering for the newer (and, for us, much less interesting) fashion for Cartes de Visite. The company subsequently diversified into many areas, including catering for the spread of the art of photography to the general public—the LSC sold materials and photography lessons for amateurs, and rented the use of studios to them. They also ran extensive printing works at New Southgate, supplying prints of all kinds for the trade, and for their amateur customers. Getty Images, who much later bought much of the surviving archives of the LSC, say, "At its peak, LSC was one of the largest and most diverse businesses, with a global network of offices and staff photographers, selling and licensing images, cameras, equipment, papers and plates."

It is a little-known fact that the LSC also became involved in the recorded music business! In May 1878, the London Stereoscopic Company "gains full rights in Edison Phonograph and any future developments." They evidently sold "tin foil" phonographs until 1891, at which point there was a dispute with Edison Phonograph over the LSC's rights to sell a new machine, and the relationship ended in a damaging court case, in which the LSC eventually lost their rights to retail phonographs.

In the late 1880s and 1890s the company appears to still have been active, producing photographs, portraits, equipment, etc., and in May 1898 they "opened extra warehouse space and a new darkroom in Glasshouse Street." Yet it seems that at some point in the continued life of the LSC, it fell on leaner times, and we have not seen any evidence to indicate that the company was able to benefit from the second great stereoscopic boom, at the turn of the century, dominated by Keystone, and Underwood and Underwood. In 1913, the company name was changed back to "The London Stereoscopic Company", but the company was finally dissolved in 1922. Much later, in the 1970s, the deeds of the LSC were bought in partnership by Jonathan Steele, one of the earliest serious collectors and researchers of this material, and himself the writer of some important articles on LSC publications in "The Photographic Collector" at that time. But again, by the 1980s, The London Stereoscopic Company had vanished from public view.

**London Stereoscopic Company in the Present Day**

Brian May and Elena Vidal have brought the LSC to life once more in the 21st century, and hope that one day the company will publish stereo cards once more. In the meantime, the immediate aim of the new company is to build a London Stereoscopic Company website, soon to be 'live' at www.LondonStereo.com, as a
resource of information for all those interested in this area. Though it is hoped that the site will expand to include many 1850s photographers and groups of stereo images, first priority in 2008 is the work of Thomas Richard Williams, photographer of great renown, whose work was among the first to be published by the original London Stereoscopic Company from 1856. There is some reason to suppose that the relationship between the LSC and TRW was not always a happy one, and if the original LSC behaved at times with less than proper respect and consideration, the new owners hope to make amends in the 21st Century! The other aim of the new website is to promote interest in classic stereography in general, making its magic available to a wider audience.

Within the T. R. Williams domain on the new site, there are three thumbnail image galleries, corresponding to his three major series of stereo cards and daguerreotypes—the “First Series”, “Scenes in Our Village”, and views in “The Crystal Palace, Sydenham”. These galleries are a visual index, a quick resource for identifying almost any T. R. Williams view. As time goes on, information will be added for each of these views individually, and clicking on a thumbnail will access scans of the images and explanatory text. This is the first time such a resource has been published, and certainly the first attempt, ever, to document the entire series of TRW’s most famous oeuvre, “Scenes in Our Village” (SIOV).

This site represents, particularly in the case of “Scenes in Our Village”, the result of 30 years of study. It also intends to provide links to other sites and organizations relating to Stereo Photography, as well as offering information on the care and conservation of stereoscopic material, and hints on how to view in 3-D, for new converts.

May and Vidal are hoping for feedback, to improve the resource, and will be providing a channel on the site for this to happen.

The London Stereoscopic Company is proud, through Stereo World, to share a preview of the long-awaited complete recognition gallery of “Scenes in Our Village”. This gallery includes all currently known stereo cards in the “Scenes in Our Village” series, by T. R. Williams. Where the captions are in CAPITALS, they are the exact title given by TRW himself as it appears on the back of the card. We have adhered to the original, sometimes unusual, but never careless, spelling of the originals (eg “To-Day”, “Potatoe”...), and the punctuation, too, is preserved, including TRW’s meticulous use of a full stop at the end of every title line. Any title or addition in lower case text, in the list or the gallery, is our own (LSC 2008) invention, added to assist identification. This gallery will appear in a similar form on the new LSC website, but there, clicking on a thumbnail image, or a title in the view list, will access the relevant ‘detail page’, showing the whole stereo card life-size, its back, an enlarged ‘half’, the appropriate verse, and, where available, information on various aspects of the view. An alternative perspective on the SIOV series is provided in the extended list of titles here.

**Scenes in our Village Titles List**

01a THE CHURCH. (Winter)
01b THE CHURCH. (Summer)
01c THE CHURCH. (with wheelbarrow)
02a THE SQUIRE’S HOUSE. (front drive)
02b THE SQUIRE’S HOUSE. (with Squire)
02c THE SQUIRE’S HOUSE. (with sickle)
03 THE FISH POND.
04 THE PARK BRIDGE.
or 04a - MY SUMMER HAUNT. (Bridge)
04b MY SUMMER HAUNT. (leaf collecting)
04c (The Bridge - close view)
05 THE CHURCH SEEN THROUGH THE TREES.
05 THE CHURCH SEEN THROUGH THE TREES. ("Mr. Simmons")
06 THE ROAD THROUGH OUR VILLAGE.
07a THE DAME AND HER SPINNING WHEEL (empty doorway)
07b THE DAME AND HER SPINNING WHEEL. (lady in doorway)
08 JOHN SIMS AT HIS PIGSTYE. (normal)
08a JOHN SIMS AT HIS PIGSTYE. (with lady)
09 MARIA CARSON'S WASHING-DAY.
10 A GOSSIP BY THE WAY.

09a JOHN SIMS AT HIS PIGSTYE. (with lady)
11 THE BLACKSMITH'S SHOP. (original)
11a THE BLACKSMITH'S SHOP. (Grundy 920)
11b THE BLACKSMITH's SHOP. (Grundy 940)
12 OLD GILES's GRIND-STONE.
13 THE COTTAGE.
14 TURNING BARLEY.
15 REAPING.
16 REAPERS AT DINNER IN THE FIELD.
17 LOADING THE WHEAT CART.
18 RICK MAKING.
19 GOING TO SCHOOL.
20 THE LAST LOAD - GLEANERS WAITING AT THE GATE.
20a (Gleaners and children ?)
21 GLEANERS RETIRING.
22 DICK CARTER's POTATO HARVEST.
23 LAZY JOE BENNETT's HUT.
24 TAKING CORN INTO THE GRANARY.
25a THE STRAW YARD. (with tree)
25a THE STRAW YARD. (no tree)

"Doveholes, Dovedale" by William Russell Sedgfield. This card shows another LSC blindstamp design; elliptical, and very similar to the "Stereoscope" stamp. The view is known to be by Sedgfield, but there is no identification on the card except the seller, the LSC, illustrating how hard it can be to identify individual photographers' work, at this distance in time. Sue Foxford collection

"The Pilot House and Shakespeare's Cliff, Dover" by William Russell Sedgfield. This very stereoscopic, and quintessentially English view, featuring the 'White Cliffs of Dover', bears the same LSC blindstamp, but this time the stamp has been applied on top of a previous imprint, that of its author, the fine English photographer William Russell Sedgfield. The photographer's stamp is pretty much obliterated, and it would be interesting to know if this was deliberate. Sue Foxford collection

(Continued on page 13)
3-D Concert Films Come of Age
U2 3D, Hannah Montana

review by Ray Zone

The U2 3D movie, distributed by National Geographic Entertainment, which premiered January 19, 2008 at the Sundance Film Festival and went into release January 23 on IMAX 3D screens is a landmark for the 3-D music film. Shot during the band’s “Vertigo” tour in 2006 in South America, the stereoscopic technology was assembled by 3ality Entertainment under CEO Steve Schklair and utilized nine different pairs of Sony HDW-950 cameras in a variety of configurations. Some of the stereo systems consisted of the 3ality beamsplitter rigs which have variable dynamic interocular that goes from 0 to 4 inches wide, animating the stereo base while cameras are rolling. The other units consisted of the Pace RCS (Reality Camera System) which used two 950 cameras side-by-side with a fixed interocular of about 2.75 inches and actively converging camera axes. All of the 3-D camera units were under the stereoscopic supervision of Peter Anderson, a longtime veteran of stereo cinematography and director of photography Tom Kreuger.

Directed by Catherine Owens, veteran maker of U2 music videos, and Mark Pellington, U2 3D marks a perfect blend of music, message and stereoscopic technology. Edited by Oliver Wiki, the 85 minute 3-D music film makes extensive use of slow cross-dissolves and layering of images to convey in a directly visceral and compelling manner the experience of a U2 concert. As such, the concertgoers blend with the theater audience in a seamless visual space that makes the music come alive and converts the movie theater into a rock arena. The continual layering of images offers the stereo cineaste ongoing delight as 3-D images made with conventional interoculars are suspended over hyperstereo images and visa versa. The sense of scale always seems to be changing. The directors have wisely withheld the off-the-screen effects, using them only for dramatic moments such as Bono’s heartfelt plea for world peace during “Sunday, Bloody Sunday” when he extends his arm right out into the theater audience.

Near the end of the film, clever wordplay is given kinetic, dimensional life as a visual counterpoint to lyrics in a song. The music is vibrant and joyous. It makes you want to get up and dance in the theater. The fluid and soaring 3-D camera moves go from a bird’s eye view of the concert to ground level with breathtaking ease as the Dolby 5.1 sound surrounds you. Never has a concert film, 2-D or 3-D, looked or sounded this good. U2 3D reinvents the music film.

Interestingly, release of U2 3D to 600 digital theaters playing the Real D and Dolby Digital 3-D platforms was held up until
February 15 by the February 1 release of Hannah Montana and Miley Cyrus from Walt Disney Pictures. Originally announced to play for one week only, Hannah Montana was held over for an additional week’s run when it captured the number one box-office spot its opening weekend, raking in $29 million.

Hannah is a more conventional concert film yet pleasing nevertheless. The concert itself is unspoolled in 3-D with the behind-the-scenes material showing rehearsals and the backstage interviews running in 2-D. Shot by veteran Large Format director of photography Reed Smoot (Cirque du Soleil, Journey of Man) with assist by Rodney Taylor, all of the stereoscopic cinematography for Hannah was produced using the Pace 3-D cameras. As a result, the whole show was shot with a fixed interocular of 2.75 inches. Fluidity of dimension had to come from movement of the cameras. A fine overall job of it, however, is done with 3-D shooting. Some surprising off-scene moments occur accidentally when a camera pans across another camera in the field of view or a stage-hand suddenly appears in silhouette.

Watching Hannah Montana leaves one impressed by the show business dedication of Miley Cyrus and her professionalism, as well as the support she receives from her family. It’s also interesting to see show choreographer and director Kenny Ortega at work creating the complex actions that go into the big production. Each time the movie goes back to 3-D from the 2-D segment there is a dimensional kick that jump starts anew the visual sense of third dimension.

After Hannah Montana completed its two-week run, U2 3-D opened on Feb. 15 wide in 3-D. It was the second 3-D release, after Beowulf, to go out on three different stereoscopic platforms. Can a 3-D movie fan ask for more?

When the Movie is Deeper than the River, You Know You’re in Trouble...

The world’s growing shortage of fresh water is highlighted in a new IMAX 3D film opening March 14, 2008. Grand Canyon Adventure: River at Risk will be the first 3-D film for IMAX Theatres from noted Large Format producer MacGillivray Freeman Films.

The movie chronicles Robert F. Kennedy, Jr. and Wade Davis, along with their daughters, as they journey down the Colorado River in the classic type of live action environmental film that IMAX 3D has presented so effectively over the years.

"In our film, the Colorado River becomes a metaphor for global water issues, revealing how inter-connected our rivers, water supply and human actions really are," says the film’s two-time Academy Award-nominated producer/director Greg MacGillivray. He adds, “A river trip is one of those amazing life events where you’re ripped out of your daily routine and inspired to see the world in new ways. With IMAX 3D images, we’re able to put the audience even more into the action and let them participate in every twist and turn.”

The world is running out of clean, fresh water so fast the U.N. estimates that 40% of the world could face life-threatening shortages by the year 2050. The Colorado once flowed freely to the Pacific Ocean. Today it no longer consistently reaches the sea, and the river, which is a source of water and power to 25 million Americans, is literally shrinking due to a severe drought cycle now facing the American Southwest. Researchers predict this so-called "mega-drought" could last into the next century, threatening to wreak havoc among the seven states that depend heavily on the river’s water.

Grand Canyon Adventure: River at Risk is produced by MacGillivray Freeman Films and MacGillivray Freeman Films Educational Foundation, presented by Teva and supported by Kohler Co. in association with Waterkeeper Alliance and the Museum Film Network. The film is directed by Greg MacGillivray, produced by Greg MacGillivray, Mark Krenzien, and Shaun MacGillivray, and written by Jack Stephens and Stephen Judson. O.A.R.S. provided production support and guide services, as well as promotional consideration. See www.grandcanyonadventurefilm.com.

Director Greg MacGillivray shoots a scene with the 3-D IMAX camera while Doug Lavendar (L) and Justin Bergler (R) assist. ©MacGillivray Freeman Films 2008
2nd Sea 3D Goes Deeper than Pretty Pictures

Abandoning the clever and humorous working title Deep Sea-quel, IMAX Corporation has announced that the third IMAX* 3D co-production with Warner Bros. will be called Under the Sea 3D, scheduled for release in February, 2009. It will follow the 2006 IMAX 3D success Deep Sea 3D, which has grossed more than $60 million worldwide and continues to draw audiences after 100 weeks in release.

But unlike Deep Sea 3D, the almost identically titled Under the Sea 3D will explore the impact that global climate change has had on ocean wilderness. (The 2006 film limited the blame for ocean ecosystem problems to “overfishing”.)

“The dazzling colors and amazing animals we’ll see filming from South Australia to the Indo-Pacific are made for the grand scale and intensity of IMAX 3D,” said Toni Myers, the film’s producer, editor and writer. “But these spectacular yet delicate ecosystems are threatened by climate change. It’s vitally important to promote awareness of that, especially among the young people who will be the stewards of our planet’s health and well-being.” (See SW Vol. 33 No. 1, page 31.)

War in Web Archives

As part of the January 27th observance of Holocaust Memorial Day, the Italian Stereoscopic Archive (Archivio Stereoscopico Italiano) presented on its website, in order not to forget, a selection of images they titled “The ‘Different’ War in Tridimensional Photographs by the Führer’s Photographers.”

The permanent Photographic Web Exhibition at www.archivostereoscopicoitaliano.it/ includes 40 of the 200 stereographs published in 1940 by the German publisher Otto Schönstein in two volumes dedicated to the occupation of Poland and Western Europe by Hitler’s troops. The original pair format can be viewed at http://tinyurl.com/25515d or the images can be viewed as anaglyphs at http://tinyurl.com/35tyve. Historical material about each image is included in English.

For those interested in having high resolution copies of the 100 views in the Raumbild book covering the German invasion of Poland (without the Archive’s name over the image), CDs (#F01870039) are available on the Golden Age Archives website www.goldnge.com/#stereoviews. These are presented in both pair and anaglyph format, but without English translations of the titles.

London Stereoscopic Company Reborn! (Continued on page 10)

26 LOADING THE DUNG CART.
27 STACKING THE LAST RICK.
28 A REST BY THE WAY.
29 DAME EDMUNDS’ TALKATIVE DAUGHTER.
30 OLD DANCY ENJOYING HIS PIPE.
31 A CHAT AT THE GATE.
32 THE RUINED COW-SHED.
33 LANE LEADING TO THE FARM.
34 THE FIRST WARM DAY IN SPRING.
35 THE OLD STORY AT THE PUMP.
36 MARTHA & DANIEL AT THE CHURN.
36a MARTHA & DANIEL AT THE CHURN. (lady stools)
37 LITTLE MARY AND HER MAGPIE.
38 THE RECTORY.
39 THE VILLAGE SCHOOLMISTRESS.
40 A VIEW OF OUR STREET.
41 THE TURNPIKE TO THE HAMLET.

42 BREAD AND CHEESE IN THE BARN.
43 A COTTAGE ON THE BANKS OF THE RIVER.
44 A VIEW OF THE BRIDGE.
45 THE WEIR, OR THE WEAR.
46 THE WEAR – ANOTHER VIEW.
47 THE FERRY.
48 UNDER THE WILLOWS.
49 ANGLING IN THE STREAM.
49a (Tadpole Bridge)
50 WHERE I CATCH THE MOST FISH.
51 “DONE FOR TO-DAY,” OR ANGLERS DONE FOR THE DAY.
52 THE CART SHED – QUITE TIRED.
53 THE REMAINS OF THE OLD HALL.
54 “TUMMUS” STANDING FOR HIS PICTURE.
55 THE DOCTOR’S ONE COW DAIRY.
55a THE DOCTOR’S ONE COW DAIRY. (with broom)
56 LITTLE POLLY GONE FAST ASLEEP.
57 EARLY MORNING – DRAWING WATER FROM THE WELL.
58 THE BACK VIEW OF NEAL’S COTTAGE.
59 MRS. GILES AT HER PUMP.
60? EVENING, THE WOODMAN’S LAST LOAD.
61? (The Lodge)
62? (A Forest Walk)

There is evidently a lot to be said about the variants included in this list, about the people in the pictures, about Grundy (!), and about the locations and techniques used. Even more power is vested in these pictures when the verses, included on the back of every card, are taken into consideration.

(Continued on page 28)
Film photography dominated the Twentieth Century. However, we have witnessed its dwindling, in these few short years, to the point where it has almost become an exotic art form. The forthcoming demise of Analog Television transmission would seem to herald the ultimate dominance of the Binary Boolean bit (a "digitized" world).

As WWII approached analog calculation held forth, with its interpolations and extrapolations, as the dominant means of "doing the math." Until the latter part of the century, the slide rule was the equivalent of a pocket calculator.

In the field of Aerial Photo Reconnaissance, since America and Britain had not fully adopted the Metric System, we did adopt another basic unit of measure. Using thousandths of a foot enabled us to avoid having to repeatedly convert back and forth between inches and feet.

This unit of measure was incorporated in the development of the Photo Interpret-O-Meter (Figure 1). As the Chief of Ground Equipment at Wright Field's U.S. Army Air Corps' Photo Reconnaissance Laboratory, Carl B. Balcomb (the author's father) was in charge the development of this tool, which greatly simplified determination of length, width and height of objects being viewed.

The challenge was to make the Photo Interpret-O-Meter easy to use, versatile and easy to manufacture. Arthur W. Judge's Stereographic Photography shows a forerunner in his Fig. 182—The Stereo Micrometer (Figure 2). Although it was a precision crafted instrument, its use of pencil-like pointers made it more difficult to pinpoint critical measuring points.

Before I get into how the Photo Interpret-O-Meter was used, it might be well to address the "PI Kit" itself. It was about briefcase size, and it was made with a Masonite top and bottom. Photo Interpreters could use it as a "drawing board like" work surface.

The "PI Kit" included various tools, such as the above, a slide rule, draftsmen's drawing instruments, triangles, T-Square (specially designed for assembly on site), special rulers and scales. All the latter were calibrated using thousandths of a foot. The kit also had a variety of "office tools and supplies," including scissors, blades, hole punches, a rotary blade paper cutter (as an attachment for the T-Square), a variety of tapes, pens, China marking and other pencils etc.

Fig. 1. The Instruction Book drawing of an assembled Photo Interpret-O-Meter.

Fig. 2. The English "Stereo Micrometer."
The accompanying prealigned and overlapping aerial views, (Figures 6 thru 8) were made up to demonstrate the unit.

With the Photo Interpret-O-Meter, while viewing stereo pairs through the folding stereoscope, one could visually align the tiny left and right eye red dots. The plate glass Y and X slides (Figure 3), can be adjusted so they appear as one, at the same level as any point on the images. To find the elevation of another spot, place the left eye dot there, and then twist the knurled knob until the fused dot appears at that level.

Using the vernier scale, one can determine how much the right eye dot has moved. If the altitude of the plane and the focal length of the camera’s lens are known, the height can be calculated. (The left “Y” slide moves manually up and down. The right “X” slide moves left and right by turning the knurled knob on the right side.)

Each slide is printed with red scales against a yellow background, to make them more visible against the gray tones of the aerial photographs. The right “X” slide has one red dot, with a somewhat bolder indicator line above it. The left “Y”
Fig. 6. To demonstrate the working of the Photo Interpret-O-Meter, this 1940s aerial hyper pair shows the Dayton, Ohio cultural center, with the Masonic Temple and Dayton Art Institute on the north side of the Great Miami River.

Fig. 7. The Grand Canyon's cliffs show extreme variations in height, ideal for practice with the Photo Interpret-O-Meter.

Fig. 8. Soil Erosion gives a good opportunity to compare elevations. With the dots locked on a given elevation, one can follow "contour lines."

slide has eleven red dots 1/20th inch apart. Viewing overlapping stereo pairs, with prints and dots aligned, the fused red dot will appear to be somewhere in space, related to the fused images. The indicator line above the fused dot will "point to" one of the yellow boxes (numbered 0 to 50). Using the knurled knob with the vernier dials, we were able to calculate height. Using the scales at the bottom of the right "X" slide (Figure 4) and the vernier dials, we* were able to calculate lengths. Anyone interested in "how the watch works" details, including the math formulas, may contact the author at bobalcomb@aol.com.

* 30th Photo Recon Sqdn, Photo Interpreter Unit. The author was a member of the unit, from its inception "stateside" until it disbanded. The 30th followed General Omar Bradley's First Army, staying close to its Headquarters. We were among the first Air Squadrons operational in Normandy. We earned six "Battle Stars" and two Presidential Unit Citations.
Lost in Rome
A Stereo Detective & the Case of Four Missing City Blocks
by David A. Horine

Some stereoviews are unique three dimensional records of architectural history. Usually, we are unaware of this uniqueness because we don't know how a building might have changed over time. I received such an architectural history lesson when I researched several stereoviews after a vacation in Italy.

I still remember my first view of the Vatican twelve years ago when my wife and I explored the city of Rome by foot. Upon arriving at the Castel Sant'Angelo on the Tiber river, we gazed westward down a wide road. There, over a half mile away, we saw our destination, the magnificent front façade of Saint Peter's Basilica. The sight was monumental and overwhelming (Figure 1). I remember thinking that the architect who planned this fantastic scene must have been an inspired genius.

As we hiked on toward Saint Peter's, our view of the Basilica continued to enlarge, and we began to sense its huge scale. We crossed the square known as Piazza San Pietro, entered the Basilica, and climbed to the roof, where we could look eastward along the path of our long walk. The view from the roof of Saint Peter's has to be the best photo opportunity in all of Rome, so we took a lot of photographs. (Figure 2)

Years later, I began to collect antique stereoviews. The Vatican is a very common subject, and I found that I had several different cards showing our view from the roof of Saint Peter's. (Figure 3). I noticed that something was amiss on each of the cards.

In every stereoview looking east from that roof, the road which we had walked upon was filled with at least four blocks of buildings (Figure 4). Our spectacular first view of Saint Peter's did not exist when the stereoviews were made.
In other stereoviews, Keystone and Underwood show scenes looking toward the Vatican that are obviously photographed from a roof in the middle of what is now a road. (Figure 5) Today, this view of Saint Peter's could only be made from a crane in the middle of the street.

These buildings have vanished. In a city where some historic buildings are over 2000 years old, I was surprised to think that such a remodeling project could have happened in recent times. I resolved to search for an answer.

How does one find something that no longer exists? At first, I wasn't even sure that I could answer this question. I decided that a good starting point would be to learn the name of the current street. With the advent of satellite photo maps of the entire earth, this proved to be an easy task. I simply downloaded a free copy of "Google Earth" from www.google.com. I turned on the "show roads" feature in "Layers," and asked Google Earth to display the region of "Vatican, Italy." After navigating by familiar landmarks and scrolling and zooming a bit, I could look down from space and see the street in question. The street of missing buildings is named "Via Della Conciliazione." I entered the name, "Via Della Conciliazione" into www.google.com and began to learn what had happened. While there are over one million web sites that contain that name, Google has arranged them so that the first listed sites were able to provide an answer to my question. It took a dictator to destroy such a big part of historic Rome.

The road between the Tiber River and Saint Peter's is part of a Roman district known as the Borgo, and the extensive history of that area is recorded at the web site http://en.wikipedia.org/wiki/Borgo_%28Rione_of_Rome%29. That site states that the Borgo's recorded history goes back to Roman times and includes numerous martyrdoms, attacks, occupations, and plunderings. All of these events have changed the Borgo's streets and buildings many times. In the year 1500, to ease traffic congestion, a new road was built to connect Saint Peter's with the city of Rome. The area of buildings between it and an existing road formed a long thin series of blocks, and was known as the "Spina." The term, Spina, referred to its shape, which was also the name of the long narrow infield of the Roman Circus. In 1929, the Fascist prime minister, Benito Mussolini, instigated the removal of the Spina's buildings when he signed the Lateran Treaty with the Vatican.

To understand the Lateran Treaty, one has to understand the history that led to the creation of Italy as a single country and also Italy's relationship with the Catholic Church. After the fall of...
the Roman Empire, the region which is now Italy split into a number of states. The consolidation of these states into a single country began in 1860, when almost all of the states in northern Italy became part of the Kingdom of Sardinia. In 1861, the Kingdom of Sardinia was joined by all the southern states except the lands near Rome, which were known as the Papal States. In 1871, virtually all of territory of the Papal States was finally integrated into the rest of Italy, and Rome became the capital city. All that remained of the Papal States was the tiny region around the Vatican, and that area did not include what is now the Via Della Conciliazione. As a protest for the loss of the Papal States' territory, each successive Pope remained a voluntary prisoner in the Vatican until 1929, when the Lateran Treaty was negotiated. The treaty defined and formalized the relationships between the Catholic Church and the Italian State in a number of different ways. The Italian government recognized Vatican City as an independent state under papal rule and provided the Vatican with money for its earlier losses of territory. In return, the Roman Catholic Church recognized Italy's government and recognized Rome as the Italian capital. Roman Catholicism was declared to be the official state religion. To celebrate the signing, Benito Mussolini proposed a symbolic grand avenue linking the Vatican State with the Italian State and, consequently, the removal of the Spina buildings. Demolition of the Spina began on October 22, 1936, with Mussolini standing on the rooftop of a doomed building and wielding a pick. Within less than a year, the Spina ceased to exist. Some of the demolished buildings were moved and rebuilt. Others were simply demolished. Most of the inhabitants, whose families had been living and working in the area for centuries, were deported to other places. Prior to demolition, very few drawings or studies of the area were made. Thus, the old photographic records are invaluable in preserving the architectural history of the Spina. Work was interrupted by WWII, but afterwards the Vatican and the Italian government decided to finish the project. The installation of the obelisks lining the road was completed in 1950.

I particularly enjoyed reading about the Via Della Conciliazione and the Spina at www.lifeinitaly.com/tourism/lazio/conciliazione.asp. In these web pages, and others (see "Via della Conciliazione" in wikipedia), scholars expressed a very negative opinion of the Via Della Conciliazione. They called the current Fascist Architecture "the most disliked avenue in Rome." While acknowledging that the removal of 22 Medieval and Renaissance buildings created a stunning view, these people believed that the removal destroyed the sense of discovery that pilgrims once had by wandering through the narrow streets of the Spina and then, suddenly, confronting the immense façade of Saint Peter's Basilica.

References:

Fig. 1. public domain photo by Bob Tubbs from https://en.wikipedia.org/wiki/Image:St_peters_vat_distance.jpg
Views in my collection showing the Spina include:
Keystone V14627T, "The Eternal City from the Dome of St. Peter's, Rome, Italy."
Keystone 39, 1901, "Rome, the Eternal City, From the Balcony of St. Peter's, Rome, Italy." ©1904
Keystone 95, 1901, "Rome, the Eternal City, From the Balcony of St. Peter's, Rome, Italy." ©1913
Keystone 84, 1901, "Rome, Italy." ©1900
Universal Photo Art 1701, "Rome from the Dome of St. Peters." ©1900
Views in my collection showing St. Peter's from the Spina include:
Keystone 11296T, "St. Peter's and the Vatican, Greatest of Churches and Greatest of Palaces, Rome, Italy." ©1905
Keystone 3435 (650), "St. Peter's, Greatest of Churches, Rome, Italy.
Discover 3D
Black Maria Gallery Explores the World of Fine Art Stereography

by Ray Zone

In January 2008 at the Black Maria Gallery in Los Angeles, I curated a 3-D art exhibit called Discover 3D. The exhibition, which ran from January 19 to February 16, featured a wide-ranging array of stereoscopic images viewed with several different techniques. Among the different 3D formats presented were medium format transparencies, large-scale wall-mounted stereographs, anaglyphs and the classic Holmes stereoview card.

Several of the artists created work in which the stereo viewing device became an art object in itself, a wall-mounted or freestanding sculpture through which the 3-D image is perceived. Other works made a “site-specific” use of the Black Maria Gallery environment to create a stereographic viewing zone. Virtual reality was also suggested by the creation of images that appear to inhabit the gallery space.

Stereoscopic paintings are very rare in the world of fine art. Though notable artists such as Marcel Duchamp, Man Ray, Magritte, Salvador Dali and Oskar Fischinger have created work in the genre, stereographic painting remains difficult to accomplish and is rarely done. With the side-by-side stereo paintings of Heather Lowe and Abe Fagenson left and right-eye images are painted on a single canvas or substrate. Heather Lowe’s poised stereographic figuration explores the boundary between solid abstraction and representation. Abe Fagenson’s luminous geometric abstractions produce a striking effect of volume. The work of Lowe and Fagenson is designed to be viewed with “cross-eye” freevision, in which gallery patrons view the work in 3-D without the use of a viewing aid.

Anaglyphic images, viewed with red and blue glasses, occupied a
unique place in the exhibit with the work of Perry Hoberman and Claudia Kunin. Hoberman installed a large anaglyph window that could be viewed from inside looking out or outside looking into the gallery. The individual objects were cut out of red and blue plastic and so shaped and placed as to float in a deep space that intersected the real world. A pedestal phantogram by Hoberman, viewable from three separate positions, made a virtual book seem to stand up straight in real space. Claudia Kunin builds remarkable 3-D images combining photography, digital techniques and stereo conversion of flat images with her "Holy Ghost" series. These remarkable images bring mythological themes to life in a startling manner when viewed with anaglyph glasses.

The Stereo Medusas of Franklin Londin has been enchanting adults and children alike in a variety of exhibition venues in the United States for several years and they are created as interactive art objects. For the Discover 3-D exhibit, Londin exhibited a newer variant of the Medusa that he calls "Hookah." With an array of internally illuminated stereo viewers at the end of flexible gooseneck extensions, the Hookah is manipulated to accommodate 3-D viewing at different heights. Londin's dramatic stereo photos inhabited each of the extensions.

Virtuoso stereo photography was on view with the work of Terry Wilson, Larry Ferguson and Boris Starosta. Terry Wilson is a prolific 3-D artist whose stereoview cards and anaglyph prints on view demonstrated her technique of bringing imagery through the "stereo window" out into the viewer space. Larry Ferguson's work juxtaposed 2-D and 3-D with a richly observed update on a classic stereoview card theme "How Biddy served the tomatoes undressed." Boris Starosta shared an enigmatic picture in his wall-mounted stereo sculpture that exemplifies the transformative nature of seeing an image in 3-D.

A large format stereo photo and two Holmes stereo view cards by Levon Parian presented enigmatic examples from his series on the images and roles of women in the world today. Parian's work also demonstrated the possibilities for large format exhibition of stereography.

It was exciting to present a diverse array of stereoscopic images and formats. And it was important to me to exhibit stereography that was created by paint and gouache, mixed-media as well as photography. Stereography has potential for many fine art applications. The Discover 3D show was an exploration of just a few artistic possibilities for stereography and the variety of display forms that can be used in a gallery setting.
World's First 3-D Planetarium Cleaves Colors

Some key advances in stereoscopic projection technology have been introduced to the public at special venues like international expositions or science museums, with practical lightweight polarizers at the 1938 New York World's Fair and IMAX 3-D at Expo 86 in Vancouver BC just two easy examples. Planetariums have seen their share of 3-D efforts, including some Chromadepth light shows and more recently the projection of 3-D films and videos on varying portions of the dome. But in January, 2008, the world's first permanent, full-dome planetarium 3-D system was installed in the 'Imiloa Astronomy Center in Hilo, Hawaii.

Forget the old concept of 360° seating surrounding a big star projector beaming points of light across the dome for viewing from all angles. As in most newer planetariums, the seating in 'Imiloa Planetarium is unidirectional but very reclined, for a full view of the entire dome from a level floor. With all seats pointed in one direction, 3-D shows with up/down oriented images, from live action to animated videos or Mars Rover stereos, can be presented as easily as the usual star maps. Rather than trying to fill the screen from beneath the center of the dome, pairs of digital projectors located near the front and back of the room project stereoscopic images on opposite sides of the 52-foot hemisphere, while digital blending technology "stitches" the centerline of the output into a seamless 3-D image.

A digital video show titled Dawn of the Space Age produced by Mirage3D introduced the new technology to the public, reliving the history and the excitement of space exploration—from the launch of Sputnik through the Apollo lunar landings and onto current manned and unmanned voyaging. All monthly Maunakea Skies (Sky Tonight) star show presentations at Imiloa Center will also include stereoscopic tours of the Universe.
Space shuttle solid rocket booster separation, from the "Dawn of the Space Age" 3-D planetarium show at the Imiloa Astronomy Center. (It may help to lean back and hold the page above your head while you imagine seeing this image on a dome above and around you.)

"This technology changes the role of a planetarium dramatically," said Imiloa Associate Director, Ka'iu Kimura. "Instead of just being a tool to teach and entertain, our planetarium is now a resource for scientists. We work closely with the telescopes on Maunakea, the 14,000-foot mountain summit, which sits ten world-class astronomical observatories. This system will now aid their research by bringing their data to life. Imiloa will also be poised to share their new research with today's young people and the broader community in exciting ways."

All of this is accomplished using Sky-Skan definiti 3D theater technology, with four cinema-quality Sony SXRD™ 4K digital projectors, definiti HD lenses, DigitalSky 2 visualization software, and 3D technology from Infitec. The definiti 3D system has been previously employed in "tilted dome" type theaters, where four or more projectors share the task of filling the huge screens with 3-D films, some near the front pointed to the upper part of the dome above the heads of the audience, and some near the rear pointed to the front area of the screen. The DigitalSky 2 software automatically adjusts the 3-D depth effect for the wide range of visuals that might appear in a real-time planetarium show, from tiny molecules to stellar distances.

Slicing Up the Spectrum

The Sky-Skan definiti 3D projection system for domed theaters and planetariums avoids the various drawbacks of polarized, shuttering, and anaglyphic projection by using the interference filtering concept also known as color notch, wavelength triplet, or simply "Dolby 3-D" (licensed from Infitec). Exactly how it works makes explaining circular polarization feel more like describing a Wheatstone viewer.

Basically, the filtering system at the projectors slices up the red, green and blue components of a stereo image like thin salami,

(Continued on page 25)
Double Vision at du Pont’s Winterthur

Exquisitely hand colored 1930s stereoviews taken inside the mansion of Henry du Pont and his family will be on exhibit March 8 to May 18, 2008, in that same estate—now the Winterthur Museum. Along with enlargements of 33 of the privately commissioned Keystone views of the home (selected from 319 in the museum’s collection), 52 will be projected in 3-D while about 20 reproduction views will be available for viewing in stereoscopes.

Titled Double Vision: 1930’s Design at Winterthur, the exhibit is on view in conjunction with the second annual Chic It Up! Winterthur Design Conference, which will take place May 16-17 and will focus on American design in the 1930s. Visitors can take a special tour in the house to see what survives from the 1930s at Winterthur today and understand how the rooms have evolved over time.

The views were taken in 1935 and 1938 by then Keystone stereographer Robert Brost, who had gone from life as a door to door Keystone view salesman to stereographing the estates of his more affluent customers, including the du Ponds. Brost was to later become a co-founder of the Three Dimension Company in Chicago, then a Director, Vice President and President of View-Master between 1955 and 1966.

One Brost story of those days is related in a chapter of the book View-Master Then and Now by Charley Van pelt and may well be a reference to Winterthur: “If you were invited to a lavish dinner party at a certain estate, the after dinner entertainment would be viewing Keystone stereo views from around the world. Each guest would have his own stereoscope. A white gloved butler would change the stereo cards for you.”

The elegance of homes like the du Pont’s (not to mention the irony of scenes like the above during the Depression), must have made a considerable impression on the young stereographer who had initially studied for the priesthood, then sold vacuum cleaners and later the very stereoviews being changed by those gloved servants. Du Pont’s commission of more than 300 Keystone stereo cards is one of the largest known of a private home. As impressive as the views themselves is their hand coloring, credited to Annette Karge of Privately commissioned Keystone view of The Chinese Parlor, Winterthur, by Robert Brost, coloring by Annette Karge. This is considered one of the most iconic rooms in the mansion. It was a central point for entertainment when the du Ponds were in residence, with guests gathering here to play bridge or for drinks before dinner. The Chinese hand-painted wallpaper was the height of “exotic” fashion in the 1930s. Mr. du Pont saw to it that the room was always filled with flowers (12-18 arrangements at any given time) selected to complement the colors of the wallpaper.

(Collection of the Winterthur Museum)
planned placement of furniture and other objects as well as harmonious colors of the architectural paneling and antique fabrics. Du Pont changed the rugs, curtains, and upholstery covers seasonally to reflect the changing colors of the garden. Guests were invited to view Brost’s stereos of Winterthur’s interiors in order to see their beauty at different seasons of the year. The Winterthur Museum and Country Estate is on Route 52 near Wilmington, Delaware. For details, call 800-448-3883 or visit www.winterthur.org.

Keystone, who was responsible for placing some special Keystone issues in a class of tinted views equalling of the best of any European or American publishers of any age. (See SW Vol. 15 No. 1, page 39.)

Du Pont used his collection of American architectural elements and antiques to create interiors meant to evoke the past, but which were characteristically 1930s in style. Considered to be among the most beautiful in America, these interiors inspired influential designers, collectors, and other taste-makers. Their influence spread solely through the praise of those who visited Winterthur: an array of noted designers, antiques dealers, and high-society friends. Each room featured carefully planned placement of furniture.

World’s First 3-D Planetarium

(Continued from page 23)

serving just half of each color’s chunk of the spectrum to each eye. The left image gets half of each color and the right image gets the other half. The passive Infitec glasses block the right image color from the left eye, and the left image color from the right eye with an efficiency that’s claimed to eliminate ghosting as a concern. What makes the trick possible is the fact that the human eye (or brain) doesn’t notice that part of the spectrum is missing, and continues to perceive normal colors. With no polarization involved, no special screen is needed and the curvature of the dome doesn’t affect the interference filtering of the projectors or glasses, allowing very immersive stereoscopic effects to fill the entire hemisphere.

For more about the 'Imiloa Astronomy Center of Hawai‘i, go to http://imiloahawaii.org or call 808-969-9700. For more about interference filtering 3-D, go to www.skyskan.com and click on “3D data sheet” under definitive 3D, or see the Infitec technical data at www.dambratec.com/resources/infitec_english.pdf.

Upcoming NSA Conventions

34th NSA Convention and Trade Fair
July 10-14 2008
Grand Rapids, MI

35th NSA Convention and Trade Fair
July 2009
Mesa, AZ
Stereoscopic cinema reached a new landmark November 16, 2007 when the Robert Zemeckis production of *Beowulf* opened in wide-release in 3-D on 1000 screens with three separate 3-D platforms, IMAX 3-D, Real D and Dolby Digital 3-D. The performance-capture, computer-generated (CG) retelling of the *Beowulf* legend based on an epic poem dating from 700 AD, was rated PG-13 and featured the voice and acting talents of Angelina Jolie, Ray Winstone, Anthony Hopkins and Crispin Glover as the monster Grendel.

Opening domestically in 2-D and 3-D on a total of 2800 screens, *Beowulf* grossed $28 million the opening weekend and 40 percent of that amount was generated from 3-D screenings. By January 2008 the worldwide gross on *Beowulf* was $105 million. The first of the new generation of digital 3-D films to appeal to an older audience, *Beowulf* featured a tasty mix of adult themes in recounting the ancient legend of a Scandinavian warrior who slayed a monster and became a king. Paramount Pictures, who distributed the film for Warner Bros., reported that half the audience for the film was over the age of 25. Rob Moore, marketing and distribution head for Paramount, stated that *Beowulf*'s success is "great for the future of 3-D."

Adapted from the classic poem to the screen by Roger Avary and Neil Gaiman, *Beowulf* has all the elements of classic adventure with a kingdom haunted by a guilty secret, battling warriors and a beautiful and evil sorceress. The rousing tale concludes with a climactic sequence in which a fire-breathing dragon and hero battle on the escarpments of an ancient castle high above the sea. It is a time of legends, a time in which nocturnal events are bathed in torch light, swathed in the golden light of heraldry and myth.

Avary and Gaiman have fashioned a poetic story, with both mythic and psychoanalytical overtones, in which protagonist and villain are mirror images spinning around a common core of ancestral sin. Director Zemeckis has subtly elucidated a rich tale about the sins of fathers coming home to haunt their houses. In this case, it is the mead hall of King Hrothgar (Anthony Hopkins) that is haunted by the misshapen monster Grendel. As played by Crispin Glover, Grendel is both frightening and vulnerable, speaking in a clever, mutant version of old English that resonates with a twisted musicality.

The staging of the action, within the mead hall or on the open sea, is well-designed for 3-D viewing. Wide shots are held for a sufficient period of time so that the audience can look around and through the stereoscopic mise-en-scene, exploring cavernous candlelit spaces or plummeting catwalks inside the motion picture screen. The off-screen 3-D effects are nicely inte-

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**Dolby Digital 3-D**

The new Dolby Digital 3-D system is making rapid deployment into the digital cinema world. 60 theaters were showing *Beowulf* in Dolby Digital 3-D in November, 2007. These same theaters are using the system to show U2 3-D in February 2008. Think of it as a "super anaglyph" that transmits a nearly full-color image to each eye. It does this using many layers of very thin film (70 to 100) each a micron thick, in each lens. This thin film makes precise selective blocking and transmission of RGB color values with very sharp, but discrete, peaks.

Exhibitors like Dolby Digital 3-D because no silver screen is required for projection. The projector has a rotating color filter wheel behind the front lens and is upgraded with a Dolby digital cinema server. The SMPTE (Society of Motion Picture and Television Engineers) stereoscopic work group, DC28.40 has recommended interoperability between the Real D and Dolby Digital 3-D platforms. The Dolby growth strategy is aggressive, so that an exhibitor only makes a one-off purchase of the system without having to pay ongoing licensing fees.

The Dolby Digital 3-D process was developed by the Infitec company which licensed its proprietary wavelength multiplexing filter to Dolby for Digital 3-D cinema. [See the graphic in "World's First 3-D Planetarium" on page 23.] Infitec is an acronym for "Interference filter technique." The Infitec process was first unveiled at Siggraph 2006 in Los Angeles where a clip of *Spy Kids* 3 in 3-D was rear-projected using two JVC digital projectors and a matte, translucent screen. Infitec technical data can be found at www.dambratec.com/resources/infitec_english.pdf.
Head mounted display for 3D Visualization. 31.95

To eliminate a cardboard cutout look with the stereo, individual shots featured multi-camera rendering where the inter-axial spacing and convergences were individually applied to different elements in the scene. This multi-camera technique, which had been used successfully on Disney's Meet the Robinsons (2007) was used throughout Beowulf. Another sophisticated technique used in Beowulf was that of the floating stereo window to address occlusion issues with the vertical surround of the screen. In addition the use of.

In realizing Zemeckis’s instructions to create a deep and compelling 3-D version of Beowulf, Engle's stereoscopic team was also careful to produce work that would not induce nausea in the viewing audience. To produce 3-D imagery that would work for both the IMAX and digital 3-D screens, the stereoscopic team rendered 3-D assets with parallel cameras. A fixed divergence of 65mm was introduced in post-production for the digital 3-D cinema version. In IMAX 3-D the two projectors are offset 65mm onscreen to approximate the same effect.

To eliminate a cardboard cutout look with the stereo, individual shots featured multi-camera rendering where the inter-axial spacing and convergences were individually applied to different elements in the scene. This multi-camera technique, which had been used successfully on Disney's Meet the Robinsons (2007) was used throughout Beowulf. Another sophisticated technique used in Beowulf was that of the floating stereo window to address occlusion issues with the vertical surround of the screen. In addition the use of animated inter-axial during the course of a shot gives Beowulf a continuously dynamic 3-D look and feel. It also makes the 3-D restful for the eyes over the course of a 100-minute feature.

It is the fluid stereoscopic nature of Beowulf that is one of its greatest achievements, although it is mostly subliminal and unnoticed while watching the story. This 3-D dynamism in feature-length narrative is becoming standard practice in CG motion pictures. It is quite another matter to implement this technique in live-action stereoscopic movies. But, with the new, compact high definition (HD) capture technology, inroads are being made.

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Stereoviews of the Middle East from the Keystone-Mast Collection will be featured in the Basement Gallery of the UCR/California Museum of Photography from February 23rd through July 12th, 2008. “Balancing the Lenses” contains views of the Middle East and India from 1890 to 1940. The images represent the daily life of the people and places photographed, as well as the culture and expectations of the photographers and of those viewing them in the West.

Western stereotypes of the Middle East were furthered with the advent of photography, and especially stereography. In the nineteenth century, photography was seen as a conveyer of “truth” with photographers seeking images that reflected the existing historical record. Scenes were staged to match western notions, and widely published stereoviews made these seem even more reflective of reality. Further spreading western perceptions of the Orient were the back notes on stereoviews and the books included in boxed sets.

The stereographs from the Keystone-Mast Collection do provide glimpses of actual daily life in the Middle East, in the streets, markets, and work places. Views in the collection show a variety of social classes, religions and activities as well as children. Countries shown in the exhibition include Algeria, Egypt, India, Morocco, Palestine (modern Israel, the West Bank and Gaza Strip, and parts of Egypt, Syria and Jordan), Tunisia and Turkey.

The exhibition is part of the National Endowment of the Humanities project “Creating Online Access to 19th and 20th Century Stereographs of the Middle East,” which seeks to digitize and catalog 9,000 images from the Keystone-Mast Collection. It is through the generosity of the Mast family and NSA member Mead Kibby that the Keystone-Mast Collection resides at the UCR/California Museum of Photography. All the images in “Balancing the Lenses” come from the collection.

At www.cmb.ucr.edu click on Exhibitions or contact UCR/CMP, 900 University Ave., Riverside CA 92521, (951) 784-FOTO.


Children pose rather nervously for the camera while picking fruit. Keystone-Mast #X12747.

London Stereoscopic Company Reborn!
(Continued on page 13)

We will be addressing all these issues on the LondonStereo.com website in the coming months, and eventually in more detail in our book, now in preparation.

What we hope is that now, for the first time in 150 years, the magic of this entire magnificent series of 3-D rustic views, the first of their kind, will be enjoyed by a wide new audience!

Sources:
The Getty Images Website www.gettyimages.com
PhotoLondon website—David Webb, Bob Pullen—www.photolondon.org.uk/
Michael Pritchard
The Edison Phoniograph—The British Connection by Frank Andrews. City of London Phonograph and Gramophone Society, Rugby, 1986
The City of Westminster Archives
The Times, 1856

For contributions of images used in the SIov gallery, we gratefully acknowledge the collections of:
Gwyn Nicholls
Russell Norton - www.stereoview.com
Ken and Jenny Jacobson
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Graham Wood
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RUINS OF POMPEII! Stereoviews sought. Also buying stereoviews of Herculaneum (Ercolano) and National Archeological Museum at Naples (aka Museo Borbonico). Pre-1870 views by European photographers of particular interest. Ross Turner, ross@rossROSSross.com.

SINGLE VIEWS, or complete sets of "Longfellows Wayside Inn" done by D. C. Osborn, Artist, Assabet, Mass., Lawrence M. Rochette, 169 Woodland Drive, Marlborough, MA 01752.

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**WANTED**

WHITE MOUNTAINS: Early photographic views and stereoviews of New Hampshire. White mountains, 1850s-1890s wanted for my collection. Town views, main streets, bridges, homes, occupational, coaches, railroads, etc. E-mail images to grandman3@LittletonCoin.com, or send photocopies to David Sundman, President, Littleton Coin Company, 1309 Mt. Eustis Rd., Littleton, NH 03561-3735.

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→ Right: The Young Velocipedist

← Left: Edward Stokes, who shot Jim Fisk over a woman.
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