3 Months of 3-D in 2001
Stereo related subjects are featured for three of the twelve months in a 2001 calendar offered by George Eastman House. Titled The Photographer's Tools—Cameras From the George Eastman House, the calendar presents an illuminating journey into the photograph and motion picture technology collection of the institution's International Museum of Photography in Rochester, NY. Each month is devoted to a different aspect of photography and camera technology. One month titled "Brownie Cameras" shows a Brownie 3-D camera among others. Another month is titled "Kodak Cameras" and shows an early Kodak 3-D camera. The best is the month titled "Stereographs." This shows a selection of 3-D cameras, viewers, and views including a TDC Vivid, Realist slides and viewer, stereo cards, a stereoscope, a wooden viewer for glass slides, and much more.

Priced at $12.95, The Photographer's Tools can be reserved or purchased by phone, fax, mail or in person at the George Eastman House Museum Shop, 900 East Avenue, Rochester, NY 14607, (716) 271-3361 ext. # 303 Fax (716) 271 3970, www.eastman.org.

Rides Go 3-D
The Iwerks® TurboRide® ride simulation theaters in five theme parks will be converted to 3-D projection in 2001 according to Iwerks Entertainment, Inc. The five 148-seat theaters will premier 7th Portal, a superhero 3-D ride film currently in production at Paramount with Stan Lee Media and Blur Studio.

TurboRide theaters will be converted at Paramount's Great America in California, Kings Island in Ohio, Kings Dominion in Virginia, Carowinds in North Carolina and Canada's Wonderland in Ontario. Each park currently has two TurboRide theaters, and one at each location will be converted to 3-D. More on Iwerks 3-D and Large Format film technology can be found at: www.iwerks.com.

Deep Adventures in Seattle
The history and development of 3-D from stereoscopes and View-Master to 3-D movies and modern technological applications is on exhibit at the Pacific Science Center in Seattle through January, 2001. The exhibit uses a variety of interactive components to demonstrate how our brain can fuse various types of image pairs into stereoscopic images. Following its run at the Pacific Science Center, the exhibit will tour nationally. The Center also has an IMAX 3-D theater with a schedule posted on its website: www.pscsci.org. Located right next to the Space Needle, PSC Hours are 10 a.m. to 5 p.m. (6 p.m. weekends) every day except Thanksgiving and Christmas.

Upcoming Stereo Exhibitions
The following upcoming competitions & Exhibitions are listed with the closing date first, followed by name and address for entry forms, the stereo formats accepted, and the entry fees. Forms for some exhibitions are available online at: http://members.aol.com/~psastereo/.

- January 18, 2001, HOLLYWOOD INTERNATIONAL STEREO CARDS. David Thompson, 400 Jasmine Dr., Brea, CA 92821. E-mail: dltd3d@aol.com. Cards. US $9. Canada & other, $11.
- January 18, 2001, HOLLYWOOD STEREO SLIDES. Mitchell Walker, P.O. Box 8834, Universal City, CA 91608. E-mail: mitchbear@earthlink.com or http://home.earthlink.net/~camview. Slides. US $9, Canada & other $11.
- March 12, 2001, WICHITA INTERNATIONAL. Alan Zimmerman, 8818 Roland St., Wichita KS 67212-4036. E-mail: azimmer@feist.com. Cards & Slides. N. Am. $6. Others $7.
- March 23, 2001, SOUTHERN CROSS. Mrs. Nancy Moxom, 46 Glenayr Ave., West Ryde, N.S.W. 2114, Australia. E-mail: raymoxom@tpg.com.au. Slides. N. Am. $8 U.S. Other, $10 Australian.
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H. C. White #9901, “President Roosevelt at his Desk in the White House, Washington.” This imposing image is one of several Roosevelt views in Part 2 of Richard Ryder’s feature TR: Portrait of Theodore Roosevelt’s Vigorous Career. This concluding half of the article deals with the stereographic record of T.R.’s public life.
As I'm sure were most readers, I had expected to see the report on the NSA convention in Mesa in this issue. It was held for our next issue in order to include Part II of Richard Ryder’s impressive feature on Theodore Roosevelt without interruption as well as several other items having specific time value. The real problem, in fact, is that we have a relative wealth of fascinating material in hand or on the way but a limited amount of space and time in which to publish it.

Going much beyond 48 page issues increases editing and layout time, making the delay in publication just that much worse for readers and staff alike. The only practical option seems to be to continue juggling of articles to publish as much as possible on a more or less regular schedule while maintaining a crude balance between historic and current stereo related material. For those wishing to see more of one or the other, I can only say that we reject very few submitted articles and that everything accepted is eventually published. The ongoing question of balance is influenced in the long run by what the most determined contributors submit and in the short run by available space and the immediate time value of various product reports and book or film reviews. In general, the balance effort would be helped by having more short (one to three page) historical articles available.

TR

Richard Ryder’s Theodore Roosevelt feature is a particularly good example of an examination of the place of stereoviews in both documenting the construction and operation of the station. During the October 11-24 Space Shuttle mission, eleven minutes of IMAX 3-D footage were shot using two specially designed cameras which will stereograph more activity inside and outside the station during future missions. With human presence in space proving controversial both scientifically and economically, the station’s sponsors are interested in the most effective PR they can get—and it’s hard to beat Large Format 3-D films for impact. Done well, such a film could make a strong emotional point visually while narration could argue the need for similar international cooperation on environmental emergencies that will make the cost of Alpha look like a dip into the petty cash box. The IMAX 3-D camera systems being used will be the subject of a detailed article by their designer in an upcoming issue.

It’s probably understandable if frequent Stereo World contributor Ryder seems to have become absorbed in his subject. Roosevelt was ahead of his time in so many ways that his words and actions—both progressive and regressive—come through today like thunderbolts of political directness long since foreign to mainstream politicians. As a pivotal figure in American history, his combinations of social fairness, military aggressiveness, wilderness conservation and trophy hunting bravado make it especially significant that he is the most stereographed of presidents.

Alpha

Once they were safely aboard, the first crew of the International Space Station informed ground control that they had named the station Alpha, since the participating countries apparently had not yet come up with anything else. It may not have the romantic appeal of Mir or the practical descriptiveness of Skylab, but at least it demonstrates that somebody cares enough to give it a name and that its mission, however limited, is at last under way. Also under way is the filming of an IMAX 3-D movie documenting the construction and operation of the station. During the October 11-24 Space Shuttle mission, eleven minutes of IMAX 3-D footage were shot using two specially designed cameras which will stereograph more activity inside and outside the station during future missions. With human presence in space proving controversial both scientifically and economically, the station’s sponsors are interested in the most effective PR they can get—and it’s hard to beat Large Format 3-D films for impact. Done well, such a film could make a strong emotional point visually while narration could argue the need for similar international cooperation on environmental emergencies that will make the cost of Alpha look like a dip into the petty cash box. The IMAX 3-D camera systems being used will be the subject of a detailed article by their designer in an upcoming issue.

Stereo Fun in ’01!

The NSA’s 27th Annual Convention and Trade Fair will be held July 19-23 at the Adam’s Mark Hotel, Buffalo, NY. Room reservations should be made directly with the Hotel. When reserving rooms, you must identify yourself as attending the National Stereoscopic Association 2001 Convention in order to receive the group rate. Convention special: Deluxe Guest accommodations at the Adam’s Mark $90.00 (plus taxes) flat room rate, per night, single, double, quadruple occupancy. Adam’s Mark Buffalo, 120 Church Street, Buffalo, NY 14202, (716) 845-5100 http://www.adamsmark.com/index.htm. For convention information, contact Marty Abramson martz3d@aol.com or visit the N.S.A 2001 web site at: http://pweb.netcom.com/~bd3d/nsa2001.html.
Stereoviews by NSA member Jonne M. Goeller will be featured at the Klamath Falls Art Association Gallery in Klamath Falls, Oregon, January 7-28, 2001. Titled Dual Visions, the show will consist of photographic works created by both Steve and Jonne Goeller.

This husband and wife team have uniquely different approaches to photographing the American west. Much of their recent work comes from remote locations found on cross country hikes. Use of a Global Positioning Satellite device gets them into places that many people never see. Often they photograph the same subjects, but in very different formats.

Jonne M. Goeller's stereographic images are print pairs. She works with both color and black and white film, depending upon the subject. Her color landscape images feature high altitude color pallets and portray nature in detail. Her black and white images feature the same high quality of black and white darkroom work that established her as a fine art photographer in the northwest.

Her work is well known in Oregon and among members of the NSA and The Stereoscopic Society of America. In the past decade she has won two best of shows at NSA convention exhibits, and was selected as one of the top 25 fine art photographers in Oregon by the Corvallis Art Association in 1998. Jonne Goeller recently retired from 31 years of teaching photography at the high school and junior college levels.

Steve Goeller's color mono landscape photographs are bold, wide angle images that portray the vastness and sometimes the isolation of the west. His compositions feature strong attention to lighting and camera angle. By using a Nikon 35mm wide angle lens with a polarizing filter, he is able to bring out details in his work that often get overlooked by other photographers. This is the first public showing of his work since 1979. Steve Goeller has used his photographic skills extensively over the years as a professional forester and consultant.

The Dual Visions show will open on Sunday January 7, 2001 at the Klamath Art Association Gallery and will run through January 28th. A reception for the photographers will be held from 12 to 4 PM. on the opening day. The gallery is located at 120 Riverside Drive in Klamath Falls and is open Thursdays through Sundays from 12-4 PM. Contact Klamath Art Association, PO Box 955, Klamath Falls, OR 97601, (541) 883-1833.

"Summit Delights" from Goosenest Peak in northern California by Jonne M. Goeller. ©1998
As the newly elected President of the National Stereoscopic Association, I would like to take this opportunity to thank the numerous donors who have contributed to our wonderful organization. For many years I have been astounded by the generosity of our members. The NSA has a standard operating budget, most of which is devoted to the publication and promotion of our fine magazine Stereo World and to hosting our annual convention. Your donations provide the means to make special things happen.

It is a pleasure for me to see that interest and support for our association remains so high each and every year. It is indeed a special treat for me to honor those members who have provided extra financial support to the organization. (This year, 350 NSA members donated a total of $7,977.00.)

These donations will be put to good use. We plan to do additional publicity for our association and produce a new membership listing in the near future. Due to the success of recent conventions (Green Bay and Mesa) we hope to be able to help host regional meetings and continue to have the necessary means to host future conventions. Our hats are off to our unpaid volunteers who have been working so hard to produce such wonderful events each year. Successful contract negotiations should keep us in the black and provide our attendees with the best possible service at upcoming conventions.

Contributions included with the annual renewal (an additional $10, $20 or more) have helped with the National Stereoscopic Association's efforts to reinstate our grant program and make headway toward the production of another color issue of Stereo World. Our web site brings in new members each month and has proven to be a great source of advance publicity and information for our annual conventions. If you have not already done so, please take a look: http://www.stereoview.org.

Future convention plans are already in the works. We will be going to Buffalo, NY in 2001; Riverside, CA in 2002; Charleston, SC in 2003 and Portland, OR in 2004. Please check our web site for more details.

We are always looking for articles to add to our magazine. A regular shooters column would be a real bonus as the focus of the organization has shifted a bit more toward the interest of stereo photographers and away from the collector's viewpoint. We will continue to maintain an equal balance of articles reflecting the interest of all members. Please feel free to contribute should you have an opportunity to do so.

The Officers and Board of Directors of the National Stereoscopic Association continue their efforts to insure that you receive the highest quality publication and services for your generous donations. Of course, we serve the association without compensation and do so based on our mutual love of all things 3-D!

If you have comments or ideas you would like to contribute please feel free to write and let us know. We are here to serve you—our members.

-Mary Ann Sell
President, National Stereoscopic Association
3752 Broadview Drive
Cincinnati, OH 45208
e-mail: ymmasell@cinti.net

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STEREEO WORLD Volume 27, Number 3
Theodore Roosevelt epitomized an entire era, a supposedly slower, gentler time, roughly coinciding with the first decade of the twentieth century, known as the Progressive Age. In reality, the era, like the man, was a study in contrasts. It was a time of great change and, as its name implies, of confidence in the future. Yet old ways died hard. The automobile was just gaining acceptance—but Roosevelt, who was often fascinated by the novel, much preferred horses to horsepower. Radio had not yet been invented, and the most rapid means of communication were, in the words of a popular stereographic joke of the time, "telegraph, telephone, and tell a woman"—in order of increasing efficiency! It was a time of simple pleasures, an age that saw the introduction of the ice cream cone, the crayon, and the teddy bear. Electricity had brought with it the wonders of the incandescent light, the phonograph, and the motion picture—all largely the product of Thomas Edison's fertile imagination.

"President Roosevelt, with Alice Roosevelt-Longworth and Hon. Nicholas Longworth in bridal attire." (#22345 by C. L. Wasson) An absolutely dazzling and deceptively genuine-looking framed photograph, one of the finest of the genre I have seen. In reality, although the preparations for the wedding were stereographed, the ceremony itself does not seem to have been covered in stereo.
imagination. Yet stereographs retained much of their popularity. And stereographs meant Roosevelt. The earliest stereograph alleged to show Theodore Roosevelt did so by accident. The date was April 25, 1865, and Roosevelt was only six years old at the time. The place was New York City—Broadway near Fourteenth Street—and the occasion was the funeral procession for President Lincoln. The view. E. & H. T. Anthony's #4596, looks across the procession route to a large brownstone draped in mourning. This was the home of Cornelius van Schaack Roosevelt, Theodore's grandfather—and legend has it that one of two small figures seen peering from a second floor window is the future President. Photo-journalist Stefan Lorant interviewed Edith Roosevelt, the President's widow, shortly before her death in 1948. A childhood friend of the Roosevelts, she was able to confirm not only that the figures are indeed Theodore and his younger brother Elliott, but that she had been there.
as well—Edith was not yet four at the time and the boys had put her out of the room when she began to cry!

All very clear cut and seemingly indisputable. Except for one thing. In the Anthony view, the figures are in the third-floor window, and are only indistinctly seen. The photograph Edith Roosevelt was shown is not the same image. The window where she indicated the boys' presence is immediately below the open one in the stereograph and is now shuttered. The stereograph was taken at a later point in the funeral procession. Obviously, the boys have moved, perhaps chastised for their treatment of their young neighbor! But where did they go? To the other end of the house—where a second-floor window facing the street is now open? Or up one flight to where a shadowy, indistinct presence appears in the third-floor window? The mystery remains. Perhaps there is another Anthony stereograph, one that clearly corresponds to the image Edith identified, and in which the boys are clearly shown.

Elliott, destined to become the father of future First Lady Eleanor Roosevelt, was something of a disappointment to his family; ultimately, in the wake of a failed marriage and chronic alcoholism, he would die at the age of only 34.

Eleanor's was not the only Roosevelt wedding of T.R.'s White House years. The social event of his Presidency was the marriage of his eldest daughter, “Princess Alice,” to Congressman Nicholas Longworth in February of 1906. The headstrong, controversial Alice had often attracted attention over the years, and T.R. had once commented that he could be President or control Alice, but certainly not both! Alice's activities had been well covered by the press, and she had been stereographed extensively both during a well-publicized tour of the Philippines with Secretary of War Taft and when, during the visit of Prince Henry of Prussia to the United States, she presided over the launching of the new imperial yacht. Many of the views of the latter event also show the President. There are several stereographs of the preparations for Alice's wedding, but apparently none of the actual ceremony or showing the President on this occasion. However, there is one view of Roosevelt with his daughter and Longworth by C. L. Wasson's International Stereograph Company that is so beautifully crafted that it appears to be a gen-

"Funeral of President Lincoln, N. Y. Cib. 7th Regiment passing in view." (#4596 by E. & H. T. Anthony) - The large brownstone home in the background is that of Cornelius van Schuylk Roosevelt, Theodore's grandfather, and photographs taken from this spot supposedly show young "Teddie" and his brother Elliott watching the procession from an upper window, a supposition given credence by the President's widow, who was there. But this is not the same photograph she identified, and Roosevelt's presence in this view is unlikely.
Remain a prominent member of the Washington social scene for three-quarters of a century, finally dying in 1981 at the redoubtable age of 96!

The first intentional views of Roosevelt apparently date from during or just before the Spanish-American War. According to Gordon Hoffman, several stereographs...

Admiral Dewey Receiving Governor Roosevelt on U.S.S. "Olympia". (William H. Rau) What thoughts must have been passing through Dewey's mind as he greeted this man to whom he owed so much! As Asst. Navy Secretary, Roosevelt had gotten Dewey his appointment to the Asiatic command, drafted his battle orders, and assured that he would retain the services of his most important asset, the powerful cruiser Olympia.

A genuine stereograph. In fact a flat photograph, it is so carefully framed at the far end of what appears to be a flower-ringed corridor that the deception is almost perfect—only an incongruous curtain that suddenly appears above the photograph at the upper right gives the trick away. Even Alice's gown seems to flow forward to sustain the illusion, a truly magnificent example of the type. Unfortunately, the marriage itself was a failure—but Alice Roosevelt would have that the deception is almost perfect—only an incongruous curtain that suddenly appears above the photograph at the upper right gives the trick away. Even Alice's gown seems to flow forward to sustain the illusion, a truly magnificent example of the type. Unfortunately, the marriage itself was a failure—but Alice Roosevelt would not remain a prominent member of the Washington social scene for three-quarters of a century, finally dying in 1981 at the redoubtable age of 96!

The first intentional views of Roosevelt apparently date from during or just before the Spanish-American War. According to Gordon Hoffman, several stereographs...

"Vice-President Roosevelt and Governor Yates, Springfield, Ill., August 30, 1901." (#733-c by C. L. Wasson, International View Co.) Although subsequently reissued without the date as "President Roosevelt and Gov. Yates", this is the most dramatic version. When this view was taken, McKinley was already packing for his ill-fated visit to the Pan-American Exposition. For Roosevelt, the Presidency was less than two weeks away.

"Vice-President Roosevelt and Governor Yates, Springfield, Ill., August 30, 1901." (C. L. Wasson)
were taken of Roosevelt while he was Assistant Secretary of the Navy in 1897 or 1898. If so, these are quite rare, and the earliest well-known views are those taken of him while he was a member of the 1st U.S. Volunteer Cavalry, the "Rough Riders," during the war. These include views taken at Camp Tampa in Florida, shortly before the embarkation for Cuba, during the island campaign itself, and at Montauk, Long Island, following the unit's return from active service. Other notables who appear with Roosevelt in some of these views include Col. Leonard Wood (the unit's nominal commander), former Confederate General "Fighting Joe" Wheeler (the overall commander of the cavalry), and Richard Harding Davis, the dean of

"President Roosevelt and escort at the depot, Canton, O." (#14568 by B. W. Kilburn. Kilburn issued a number of views of Roosevelt at the funeral services for his predecessor, including several taken at the railroad station in McKinley's hometown. T.R. would return to the Ohio community in 1907 to dedicate a monument to the slain President. Note the early movie camera at the right; the footage taken by it was recently used in a Roosevelt television documentary.

President Roosevelt and escort at the depot, Canton, O.

"President Roosevelt and Senator Lodge leaving the hotel at Northfield, Mass." (U&U) This remarkable stereograph, taken the day of Roosevelt's near-fatal carriage accident, shows a bruised and battered, but still game, President, supporting his injured leg with a cane. Mass. Senator Henry Cabot Lodge, a close friend and political confidante of Roosevelt, was the most powerful Republican in the Upper House; in the wake of World War I, he would become Wilson's nemesis and block America's entry into the League of Nations.
the war correspondents and a man who would help to boost Roosevelt's war reputation. Not that it would need much boosting! (In addition to being the foremost American correspondent of his day, the ruggedly handsome Davis also deserves mention as a fashion footnote, having served famed illustrator Charles Dana Gibson as the model for the male counterpart to the legendary, trend-setting "Gibson girl").

Roosevelt's years as Governor of New York were also documented in stereographs, at least minimally. These views include a wonderful image of the Governor greeting Commodore Dewey aboard the Olympia in New York Harbor, upon the latter's return from the Philippines. This intriguing stereograph in fact represents nothing less than the fusion of the three elements that had made possible the pivotal victory at Manila Bay—the gallant fighting sailor himself, the astute strategist who had secured him his command and drafted his instructions, and the superb tool (provided by Roosevelt) with which Dewey had carried them out, the magnificent warship on which the men are standing!

T.R.'s subsequent career as Vice-President was too short to make much of an impression, stereographically or otherwise. He had in fact presided over the Senate (his one constitutionally mandated duty) for a grand total of only four days. Nevertheless, Vice-President Roosevelt does appear in the background (looking somewhat less than delighted) in the Underwood view of McKinley's swearing in by Chief Justice Melville Fuller. Boss Thomas Platt, whose idea it had been to exile Roosevelt to the Vice-Presidency, had himself earlier been stereographed by the Underwoods as part of their extensive Congressional series. Platt now traveled to Washington in March of 1901 to, as he put it, "see Teddy take the veil." But if he thought that for Roosevelt the Vice-Presidency would be the equivalent of entering a convent, destiny would soon prove him very wrong.

Even as Vice-President, Roosevelt the war hero proved to be what we would today term a magnificent "photo op" for aspiring politicians, and one such view is especially noteworthy. Published by C. L. Wasson on the International View Co. imprint, it was taken in Springfield, Ill., on August 30, 1901, and shows T.R. seated with Gov. Yates. Just seven short days after this view was taken, McKinley would be fighting for his life and Roosevelt on the threshold of the Presidency. The view continued to be issued in later years, with the caption modified to read President Roosevelt, a slight and perhaps forgivable bit of deception.

Among the numerous views of McKinley's funeral are several by Kilburn which show the new President arriving at the railroad depot prior to the services in Canton, Ohio, McKinley's home town. (Roosevelt would return to the Ohio community six years later for dedication of a McKinley memorial and stereographs of the two occasions should not be confused.)

Subsequent stereographic coverage of Roosevelt's 7½ year tenure in the White House was so extensive that it is difficult to decide where to begin. As with McKinley, Underwood issued a boxed set, entitled "Roosevelt Through the Stereoscope," which appears to have been confined to the 36-card format, at a price of $6.20. (Roosevelt himself would no doubt have altered the title to read "Thru the Stereoscope," since one of his
less successful endeavors was an attempt to simplify or "Americanize" the English language by eliminating what he regarded as superfluous letters.) This appears to have been the only Roosevelt boxed set per se, although H. C. White lists a consecutively numbered series of 18 views of the 1905 "Inauguration of Theodore Roosevelt" (not all of which show the President) and an equivalent group of "President Roosevelt's Hunting Trip in Colorado"—while the Keystone catalog enumerates a group of 25 views of "President Roosevelt." The two H. C. White groupings are adjacent in number and, together with an uncompleted sequence of Roosevelt in Washington, may be indicative of an unrealized intention to issue a boxed set of perhaps 50 views. Several other sets, such as Underwood's of the Russo-Japanese War and Panama Canal, incorporate views of Roosevelt.

Although, not surprisingly, more views of Roosevelt as President were taken in Washington, D.C., than any other single location, the vast majority of the Presidential views were taken neither there nor at Roosevelt's home on Long Island (another popular venue), but rather at scores of different locations on the President's frequent travels throughout the country. Many of these trips were political in nature, speaking tours designed to bring the President close to the people; others were primarily hunting trips and represented T.R.'s love of the outdoors. Some trips combined the two. Roosevelt was the first President to travel extensively throughout the country while in office—both Benjamin Harrison and McKinley had done so before. But he was the first President to do so repeatedly, on a somewhat regular basis—and this despite the fact that one of the first trips, a six-state, thirteen-day swing through New England just before the Congressional elections in 1902, had ended in near disaster!

The tour was a triumph for Roosevelt personally, with enthusiastic crowds everywhere. In Portland, Maine, he shared the podium with the state's popular former Governor and Civil War legend, Joshua Lawrence Chamberlain. Here, speaking to American patriotism, he clearly foreshadowed another charismatic President's most famous words: "The State can do something for all of us, but not so much as we can do for the State." JFK may have said it better, but T.R. said it first! In Hartford, Roosevelt became the first President to ride in an automobile, a Columbia Electric Victoria (okay, the mortally wounded McKinley had been transported to the infirmary in the Pan-American Exposition's motorized ambulance—but he was in no condition to enjoy the trip!)

Everything went well on Roosevelt's trip until September 3rd, the final day, when the President's open landau carriage was struck by a speeding trolley car at an intersection in Pittsfield, Mass. The carriage overturned, hurling its occupants heavily to the ground. While the state's Governor emerged unscathed, Roosevelt and his personal secretary were both injured, and a guard and one of the horses killed. When the trolley's offending motorman indignantly tried to claim he had the right-of-way, an irate and badly injured Roosevelt had to be restrained from assaulting the man! T.R. suffered massive facial bruises and his left leg would subsequently require surgery. In a remarkable Underwood view taken later in the day at Northfield, Mass., T.R. is seen supporting his...
weight on a cane and with his swollen face clearly evident.

Nevertheless, after a few days rest at Sagamore Hill, Roosevelt was off again, this time to the deep South, to the Carolinas and Georgia, with the latter including a stop at his mother's ancestral home in Roswell. This trip was also well covered by Underwood. A subsequent planned Western trip, his third in little over a month, had to be canceled so that his leg could be attended to. It never did heal properly and would give him pain for the remainder of his life.

Roosevelt's most extensive excursion was a two-month swing through most of the Western states in the spring of 1903, a journey that included visits to Yellowstone National Park with naturalist John Burroughs and to California's...
Yosemite with the even more renowned preservationist John Muir. (Burroughs himself recounted the adventure in a delightful little book, *Camping and Tramping with Roosevelt.* Published in 1906, it was illustrated with a number of stereo halves.) Perhaps the most well-known of Roosevelt "wilderness" stereographs, a dramatic view of him standing on the edge of the precipice at Yosemite’s Glacier Point, was taken at this time. Another image, best known as a single photograph, shows him standing with John Muir at the same location; this is in fact an Underwood stereograph, although apparently quite rare in the full 3-D format.

The trip began in the midwest, and included stops throughout the Rockies and Pacific coast states, as well as a visit to the Grand Canyon with Arizona’s Territorial Governor Alexander Brodie, a former “Rough Rider” officer. The entire trip received exhaustive coverage by Underwood, as did nearly all of Roosevelt’s travels. (Underwood affiliate Henry Strohmeyer had himself been stereographed with the President in New Hampshire in 1902.)

Subsequent hunting excursions to Colorado and, in April of 1905, to Oklahoma and Texas were also well documented stereographically, the former by H. C. White, the latter by Kilburn, and both by the ubiquitous Underwoods. There is also apparently at least one substantial grouping by a local photographer in the Dakotas. Many of these views show Roosevelt in rough kit, with horse and gun, and eloquently capture his sheer joy in the wilderness life. Although T.R. delivered numerous formal speeches during these tours, he also made literally scores of "brief remarks" from the rear platform of his special railroad car to appreciative trackside crowds at the various "whistle stops" along the route. As with the more formal occasions, many of these brief layovers were also documented stereographically. The 1905 trip also appears to have included an extensive swing through the South, with stereographed stops in Georgia, Florida, Alabama, and Tennessee. This seems a likely prospect for stereographs from four of the as yet unrepresented states—Mississippi, Louisiana, Kentucky, and West Virginia. There are, in addition, a number of views taken on a Presidential steamboat excursion on the Mississippi in 1907 (on the “Mississippi” in more than one sense, for that was also the name of the steamboat involved!) This trip, originating in Cairo, Ill., is another possible source for views from the missing states.

One of the more striking features of the stereo coverage of T.R.’s speaking tours is the frequency with which quotations from those speeches appear in the captions of the various views. This tends to confirm Roosevelt’s view of the Presidency as a “bully pulpit” from which to educate the American people on the key issues of the day—and such quotations no doubt contributed to that educational process.

In addition to the major trips, there were numerous lesser functions as well, mostly within the Mid-Atlantic region, that did not necessitate a prolonged absence from the nation’s capitol. These included dedication of the New Jersey monument on the Antietam battlefield, appearances in Philadelphia and Wilkes-Barre in Pennsylvania, and attendance at both the Louisiana Purchase Exposition in 1904 and the Jamestown Festival in 1907. All were stereographed, the latter two extensively. The Keystone views of the President at the Jamestown Festival contain on the back a lengthy
"In the Library, home of President Roosevelt, Sagamore Hill, Oyster Bay, N.Y." (U&U)
The large portrait at upper left is that of the President's father, Theodore, Sr., T.R.'s most powerful role model. The bronze sculpture immediately below the portrait, by renowned Western artist Frederick Remington, was a gift from the officers and men of the 1st U.S. Volunteer Cavalry, the "Rough Riders," and was presented to the Colonel at Camp Montauk upon the regiment's return from Cuba. For years, T.R. refused to have a telephone at Sagamore Hill; eventually he relented and one was installed here in the library. (John Weiler collection)

excerpt from his speech there, an address that clearly outlined Roosevelt's philosophy of the "Square Deal". Speaking of the experiences—and shortcomings—of the first colonists, Roosevelt asserted that "the cornerstone of the republic lies in our treating each man on his worth as a man, paying no heed to his creed, his birthplace, or his occupation. This great Republic of ours... shall remain what our fathers who founded it intended it to be—a government in which each man stands on his worth as a man, where each is given the largest personal liberty consistent with securing the well-being of the whole, and where so far as in us lies, we strive continually to secure for each man such equality of opportunity that... he may have a fair chance to show the stuff that is in him." This was both the philosophy by which he lived his own life and the guiding spirit of the Progressive Age.

Among the notables stereographed with the President, in addition to those already mentioned, were labor leader John Mitchell of the anthracite coal miners, reformer and old friend Jacob Riis, African-American educator Booker T. Washington, and Britain's famed yachtsman, Sir Thomas Lipton. By far the largest number of notables stereographed with the President at any given time is to be found in an Underwood view, unfortunately rather distant, of the President with the delegates to the National Resources Conference held in Washington in May of 1908. Assembled with the President on the porch of the White House are (among others) Vice-President Fairbanks, Andrew Carnegie, William Jennings Bryan, railroad tycoon James J. Hill, labor leader John Mitchell, forester Gifford Pinchot, no fewer than thirty-six Governors, including New York's Charles Evans Hughes (like Bryan, Hughes would be both Presidential candidate and Secretary of State), and almost the entire Supreme Court! All can be clearly picked out with the aid of a magnifying lens.

Lipton appears with Roosevelt and Admiral Dewey in a view taken aboard the Presidential yacht Mayflower at a Naval Review held at Oyster Bay, near the President's Long Island home, in the summer of 1903. Underwood asserted that no fewer than "twenty-two of the finest vessels in the U.S. Navy" were lined up for the President's inspection and noted that over 2,500 rounds of blank charges were fired off by the warships during the subsequent festivities. Even T.R., one suspects, must have been well satisfied! At a dinner for his distinguished guests later that evening, Roosevelt's impish humor asserted itself as he referred to Lipton and C.O. Iselin, his American rival in the forthcoming America's Cup competition, as the "representatives of an international incident."

Such Presidential reviews of the fleet were frequent occurrences and were thoroughly stereographed—it was on a similar occasion in 1905 that the first Presidential submarine ride took place. At times it seemed that Roosevelt almost regarded the Navy as his own personal plaything, and he went through no less than six Secretaries of the Navy in just seven years—including his old boss, John D. Long. Among the views of Roosevelt reviewing the fleet are several showing him with Secretaries Moody and Bonaparte, and perhaps others.

The President was also on hand for both the departure and return of the "Great White Fleet", and
views show him with both Admiral Robley “Fighting Bob” Evans, who had captained the Iowa at the battle of Santiago during the Spanish-American War and who now commanded the Fleet during the first half of its history-making global cruise, and Admiral Charles Sperry, who would command during the latter half of the voyage. He was also stereographed with the captains of the various battleships.

Not far from the site of the Oyster Bay Naval Reviews lies Sagamore Hill. Surrounded by extensive grounds and various outbuildings, the spacious two-story dwelling sits atop a low hill overlooking the broad waters of the bay. From the approach road, its high gabled roofs are visible amid a scattering of majestic trees. A broad expanse of lawn sweeps down from the large open porch, past the tennis courts, almost to the water’s edge. To the right lies the curious little pet cemetery, final resting place of so many of the Roosevelt family animals, including “Little Texas”, the horse the Colonel had ridden to victory back in 1898.

The whole house betrays the character of its owner. Inside, amid the typical Victorian clutter, heads, horns, and skins, the trophies of an adventurous life, seem to be everywhere. T.R.’s uniform hat still hangs from an elk’s antlers, exactly where he had tossed it upon his return from the war, although a century of decay and gravity have taken their toll - one of the tines now protrudes impudently through the tattered brim. Paintings and photographs too hang in abundance, including many family portraits. Only one likeness is missing; there are no reminders at all of Alice Lee, Roosevelt’s first wife—except for one tiny photograph on the wall of young Alice’s second-floor bedroom, and that is placed in such a way as not to be visible from the doorway. Apparently, the memories were still too painful.

Sagamore Hill fairly oozes Roosevelt. He always said he was happiest here, and it is easy to see why. The house itself was stereographed, both inside and out, in a fairly extensive grouping of views taken by Underwood in 1904. T.R. too was frequently portrayed here. The most famous of these views is doubtless the Underwood image of virtually the entire Roosevelt clan, carefully arranged on the lawn for a formal family portrait—the President and Edith seated in chairs flanked by the younger boys, with Kermit, Alice, and Ted standing behind. Even the family dog lies at Roosevelt’s feet. Only young Ethel is absent.

Less well-known is another view, taken at the same time and location, of Roosevelt, his face beaming with evident pride, surrounded by his four sons, Ted, Kermit, Archie, and Quentin. Underwood also issued views of Edith Roosevelt by herself. This remarkable woman not only had to deal with Washington society, running a large household, and six active children, but her overly boisterous and unpredictable husband as well. A truly Herculean task that one suspects would have taxed the patience of a saint!

Other Sagamore Hill views include a pair of T.R. on the porch with the “notification committee”, an assemblage of Republican Party bigwigs charged with officially informing Roosevelt of his nomination for the Presidency in 1904. Along with these are no less than eight distinct variants of an Underwood image depicting Roosevelt and his Vice-Presidential running mate, Sen. Charles Fairbanks, seated in large wicker lawn chairs for a formal campaign portrait. T.R.
always looks vaguely ill at ease in such seated portraits with other politicians, almost as if he resents having to share the limelight. (In this case, there was good reason; the pairing was a political formality and the two men did not get along.) Roosevelt seems much more at ease in informal settings.

Roosevelt's victory in the 1904 election led to another substantial grouping of Presidential stereo-graphs, those of his subsequent inauguration and related festivities. This event was extremely well covered, with H. C. White alone, as we have seen, issuing a group of no less than 18 views of the occasion.

Underwood of course produced numerous views, as did several other makers, most notably William H. Rau. These images show Roosevelt on the way to what more than one editorial writer described as his "coronation," a striking view of him taking the oath before Chief Justice Fuller, his Inaugural Address, and reviewing the massive parade held in his
honor—the high point of which was possibly the presence of the legendary Apache leader Geronimo along with Comanche Quanah Parker and several other former warriors of various tribes, all mounted on horseback and decked out in their best finery (which appears more Hollywood than Apache!). The Indian presence was also recorded in a lithoprint view of the inauguration by Metropolitan Syndicate Press of Chicago. As a George W. Griffith stereograph rather floridly described the occasion: "No king returning to his throne, no prince at the head of a victorious army just back from a successful war, no Roman conqueror returning in barbaric splendor to his triumph in the capital was ever given a greater ovation."

As to the address itself, Underwood described it as "a characteristic utterance, pointed, straightforward, energetic, brief." The inauguration was beyond question the most extensively stereographed single event of T.R.'s Presidency (there were certainly more views of the 1903 Western trip, but that had extended over a period of two months).

Washington, D.C., or, more specifically, the White House, was the setting for a host of other Roosevelt stereotypes. Nearly all of these were taken in the President's office and include relatively formal seated and standing portraits, as well as more relaxed views of Roosevelt engaged in his daily activities—such as dictating a memorandum to his personal secretary, William Loeb. These views enjoyed a wide circulation and consequently are among those most frequently encountered by collectors today; this tends to belie the fact that they probably account for no more than 20% of the known Roosevelt views.

Among the best of the formal portraits is H. C. White's #9901, which shows the President seated at his desk before a large globe. As White described the subject, "There is an earnestness of purpose in every line of this strong face. It is the best commentary upon its owner's energetic career. An active mind in an active body, - these gifts may be at once discovered in a moment's study of face and figure, or even of the hand alone.... Dutch blood and a Southern mother, Harvard training, a gifted pen, travel, frontier life, hard work in public office, gallantry in the field, a determined energy in all that he does, not without a lively interest in what others have done in the past, - all these make an equipment which even his enemies must admire...."

Roosevelt's activities in the realm of foreign affairs also came in for stereographic attention. The most well-known and frequently encountered of such views is the Underwood image of Roosevelt posing with Russian and Japanese envoys aboard the Presidential yacht during the 1905 treaty negotiations at Portsmouth, N.H., meetings which culminated in an end to the Russo-Japanese War and garnered for Roosevelt his Nobel Prize. Perhaps the most interesting feature of this view is the degree to which Russian ambassador Sergei Witte dwarfs his Japanese counterpart, almost an exact reversal of what had happened between the combatants in the actual fighting on land and sea! This view was also issued as part of Underwood's 50-card boxed set of the war.

Of equal or greater interest are views taken of Roosevelt's visit to Panama aboard the battleship Louisiana during November of 1906. Typically, he chose to arrive at the height of the rainy season, so that he could see conditions in Panama at their worst. He was not disappointed. Torrential downpours occurred for much of the President's three-day visit but...
utterly failed to dampen his spirit; at one point, three inches of rain fell in only two hours.

There are generally assumed to be two views of the President in Panama, both fairly dramatic, Underwood images of Roosevelt talking with Canal workers at Pedro Miguel, just outside the mammoth Culebra Cut, and posing there at the controls of one of the giant steam shovels, a 95-ton Bucyrus, involved in the construction process. There are in fact at least two other, uncaptioned Underwood views of the visit that do not immediately betray their origin. In one, Roosevelt is shown seated at the head of a table in a rough building, his hair disheveled from the wide-brimmed straw hat that now hangs from a peg on the wall behind him. Several men are seated around the President for what is obviously a plain meal (as indicated by the condiment bottles on the otherwise unadorned table surface). The first clue to the image's origin is the fact that most of the men, like the President himself, are in white tropical wear, exactly as Roosevelt appears in the other Canal views. Judging that the individual to the President's right was likely to be the most prominent, I compared his likeness to that of Col. Goethals, the legendary engineer who built the Canal, and was somewhat disappointed to find that they did not match. But I soon discovered that Goethals had only been appointed in 1907 and had not in fact been Chief Engineer at the time of Roosevelt's visit. This proved to be the key. The individual at Roosevelt's right turned out to be Goethal's predecessor, John Stevens, who was to resign a few months after the President's trip. The other view shows Roosevelt and his wife descending a broad flight of steps outside a plain screened-in bungalow, probably Stevens' home, which was the site of an informal luncheon on November 16th. The Roosevelts are accompanied by other officials whose unfastened umbrellas bear mute testimony to the almost incessant downpours. More than 90% of all Roosevelt stereographs were taken during the Presidential years. Almost certainly the last of these is H. C. White's #9951. Taken on the final day of his term, March 4, 1909, it shows Roosevelt and President-elect Taft mounting the Capitol steps amid a swirling snowstorm on their way to the latter's inauguration. The weather perhaps was indicative of Roosevelt's mixed feelings on leaving the White House, as well as symbolic of the soon-to-be stormy relationship between the two former friends.

By way of contrast, post-Presidential views of Roosevelt are uncommon. In part, this was due to Roosevelt himself. His activities were often removed from the American scene and either located in a place inconvenient for stereographing (such as the East African plains or wilds of the Amazon) or of insufficient interest to attract the attention of American stereographers (such as hobnobbing with the crowned heads of Europe). Underwood did capture Roosevelt in Cairo on the return from his African adventure—but this came about almost by accident. In the view, T.R. is shown meeting with tourists from the S.S. Cleveland during that steamship's round-the-world cruise—Underwood had a stereographer on board to provide passengers with a record of their voyage. Roosevelt also attracted considerable attention upon his return to New York from Europe in 1910, and he was stereographed on this occasion as well. The former President campaigned extensively throughout the country during the Congressional elec-
tions that year and at least one local photographer, Edward Tan-
gen of Boulder, Colorado, captured his activities in a group of ten views entitled "A Strenuous Day in the Life of Colonel Theodore Roo-
szefeldt at Denver, Colorado, Aug. 29, 1910." In addition to the parade and reception, many of these show the guest of honor. The most commonly encoun-
tered post-Presidential views of T.R., however, are two issued by Keystone during the 1912 "Bull Moose" Campaign for the Presidency. One, a formal portrait of the former President at his desk in his Sagamore Hill study, also appears on an Underwood label; the other, showing Roosevelt riding in an open car, is probably of more interest. As already indicated, T.R. had been the first President to make use of the automobile, and it was on just such an occasion as this in 1912, while Roosevelt was entering a car on his way to make a speech, that he was shot by a would-be assassin.

Roosevelt is not known to have been stereographed after 1912, although both his funeral in 1919 and Quentin's grave in France were covered.

Even before his death, Roosevelt had become something of an American icon. His likeness and legacy adorned all sorts of products in his own day, from board games and calendars to mechanical banks. The teddy bear had become—and remains—an indelible part of American culture.

When sculptor Gutzon Borglum carved the faces of America's greatest Presidents from the granite side of South Dakota's Mt. Rushmore in the 1930's, T.R. was right up there with Washington, Jefferson, and Lincoln. Stereographs exist of Mt. Rushmore under construction, with Roosevelt's likeness as yet unfinished.

More unusual are several views of two large "butter sculptures"—a bust and a full equestrian statue!—of Roosevelt at the 1904 Louisiana Purchase Exposition in St. Louis. This somewhat esoteric art-form enjoyed a certain popularity in the nineteenth century and had been exhibited as early as the 1876 Centennial Exhibition in Philadelphia—where one example garnered sufficient attention to be stereographed. Another stereograph, taken the following year, actually shows an artist, Caroline S. Brooks, in the process of creating a butter sculpture at an exhibition held in Boston's Armory Hall—indicating the tools employed to be "a common butter paddle, cedar sticks, broom straws, and a camel's hair pencil." But both of these early examples are little more than bas-reliefs, figures extending out from a flat pan of the oleaginous substance.

The Roosevelt butter sculptures are far more complex—and presumably were more difficult to achieve. C. H. Graves produced a view of a bust of Roosevelt, apparently carved from a single block of butter, that is startling in its detail—all the way to the rims of his spectacles. Even more amazing is the equestrian statue of the President, complete with spurs and fringed buckskin. This was stereographed at least twice, on display in the Palace of Agriculture by Griffith & Griffith, and in a back room before being placed on display, by C. L. Wasson. While the size of these sculptures is unclear, the Griffith image suggests that the equestrian statue was probably several feet in height! The sheer weight of the sculpture was such that it required the placing of an additional support under the center of the horse's body. How these bizarre artworks were preserved in the heat of the St. Louis summer certainly must be one of the great technological achievements of the Fair! Roosevelt and his wife visited the Louisiana Purchase Exposition, but it is unclear whether or not he saw these most unusual likenesses.
One suspects he would have liked that.

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Mount Rushmore, South Dakota: Where 'The Big Rock Will Eternize the Nation's Progress' (1941) by Kaye Wendel Co. By May 1938, when sculptor completed a model of the granite mountain, it was 100 feet high and 400 feet long, with an average cut of 30 feet deep. Not the scaffolding obscuring the lower part of Roosevelt's eye in incomplete face...
In 1997, Imax Corporation, Inc. (IMAX) released a short film titled *Paint Misbehavin*, that promised 3-D large format (LF) animated films coming soon. The short ran like a preview—so much so, that individuals who had seen the short did not realize that they had in fact already seen it, instead believing they had only seen a preview. *Paint Misbehavin* was first seen in November 1997 with the IMAX Nutcracker (SW Vol. 24 No. 3 pg. 24).

IMAX now brings us CyberWorld 3D (2000) the first animated LF film. The press kit incorrectly proclaims the film “The first ever 3D animated film!” The long title is *Imax Corporation's CyberWorld 3D, presented by Intel*. This film also plays like a preview attraction (a 48 minute preview attraction), but it is very enjoyable and provides the viewer some wonderful stereoscopic imagery to escape into for those 48 minutes. *CyberWorld 3D* stitches together short clips of animated segments, often leaving us wanting more.


Although listed as not rated by the MPAA, there was perhaps a little concern about a PG rating when the preview prints, containing the original dialog from *Antz* and *The Simpsons* had a couple of questionable words for an Imax film release. Imax sent out a remixed soundtrack, in which the word “Anus” from *Antz* was replaced with “Caboose” and “Bitching” from *The Simpsons* was replaced with “Talking”.

The genesis of *CyberWorld 3D* can be traced to 1995, when *CyberWorld 3D* producer/co-screenwriter Steve Hoban joined Imax Corporation, spearheading the creation of their animation studio and the development of their proprietary 3-D animation technology. Hoban produced *Paint Misbehavin* with Imax co-founder Roman Kroitor. Kroitor is the co-producer of the “Cyber Critter” segment of *CyberWorld 3D*. In addition to producing the very first IMAX film *Tiger Child* (1970) Kroitor has produced the 3-D IMAX films *We Are Born of Stars* (1985) (SW Vol. 12 No.3 pg. 28), *The Last Buffalo* (1990) and *Echoes of the Sun* (1990) (SW Vol.12 No. 2 pg. 12).

Kroitor is a past senior vice president and former director of Imax Corporation. He currently works with Imax as a consultant and has been focusing on exploring innovative ways of using the LF film by expanding their use of 3-D technology. Kroitor developed the IMAX proprietary 3-D stereoscopic animation system called SANDDE (Stereo ANIMATION Drawing DEvice). Imax Sandde Animation, Inc. was formed in 1997. With the SANDDE 3-D process and its complimentary technology Geppetto, animators can now draw and animate in actual 3-D space, freehand. The results have the appearance and feel of traditional cell-style animation, but in three dimensions. Animators wear 3-D glasses and see their work, in real time, literally floating in mid air.

Hugh Murray wrote the story and also worked as a producer and co-screenwriter for *CyberWorld 3D*. Murray has been with Imax for over a decade and has been an integral part of the evolution of the technology of producing LF 3-D films. He is thought by many...
to be one of the world's outstanding stereoscopic experts and also designed the optical chain for the first IMAX 3D camera. Walt Disney and Pixar Animation Studio made the first fully computer-animated feature film with *Toy Story* (1995). This started Murray to begin looking into the possibilities of reconfiguring or recreating computer animated films for Imax. Imax began doing some early tests with Mainframe Entertainment in Vancouver and Core Digital in Toronto. The tests were successful and Imax began to search for the best computer animation available and a plan to put it together in a way that would make an entertaining film to demonstrate the power of computer animated LF 3-D films. Originally planned as a retrospective documentary of computer animation, the focus of the production shifted to the concept of a film based purely on entertainment.

**The Word Gets Out**

At the SIGGRAPH (the special interest group for computer graphics) conference in August, 1997, Imax spread the word that they were canvassing materials to consider for inclusion in this LF 3-D film. The filmmakers spent close to one year going through over 250 submissions and securing agreements for each film segment. There were many beautifully animated segments that had been created for the front end of computer games. Although wonderfully rendered, most of these contained extremely violent material and were ruled out.

The April 1998 SIGGRAPH Los Angeles Chapter Meeting took place at the IMAX 3D Theater, located at the then newly expanded and renamed California Science Center, near downtown Los Angeles. The theater had also been recently opened, replacing an older one at that location. It now had a seven story high and 90-foot wide screen with a six-channel surround sound system. Imax Corporation's Senior Vice President Andrew Gellis spoke to the group, delivering much the same message, that Imax is working on some amazing things. Gellis presented a reel comprised of trailers of current and upcoming IMAX 3-D and 2-D films, as well as demonstrations of various types of computer imaging and animation for the IMAX 3D format.

The reel included the 3-D trailers of: the IMAX Nutcracker, *Wings of Courage* (1995) *(SW Vol. 22 No. 3 pg. 18)*, *Across the Sea of Time* (1995) *(SW Vol. 22 No. 4), L5: First City in Space* (1996) *(SW Vol. 23 No. 5 pg. 24)*, *Into the Deep* (1994) *(SW Vol. 21 No. 5 pg. 18)*, and trailers from two 2-D films: *Mission to MIR* (1997) and *Rolling Stones At The Max* (1991). But the most interesting part of the program was the IMAX 3-D test demonstrations. These included some footage based on *The Tale of the Seahorse*, and a short segment of the flying geese from the movie *Fly Away Home* (1996), which had been turned into IMAX 3D flying geese! Also shown were some early tests of animated dragons and the entire *Paint Misbehavin* short.

At that time Gellis explained the IMAX 3D SANDDE process as one which permits animators to draw and color 3-D images freehand in space as if they were putting a pencil to paper. Using a freehand "wand" to draw or sculpt characters in air, the animator's work is translated from the imagination to real-time 3-D. He stated the ground breaking work is based on the premise that animators prefer to draw without the interference of a keyboard or a mouse in the creative process.

Gellis also announced that an IMAX 3D computer animation showcase film would be out in the spring of 1999 *(CyberWorld 3D did not premiere until September 26, 2000 in New York. It opened in selected U.S. and Canadian cities on October 6, with other worldwide openings on October 20)*. Gellis stated IMAX had contacted most filmmakers who have used computer generated imagery (CGI) work in their films and had taken bits and pieces of what has been seen and converted these clips to IMAX 3D. He said wrap-arounds would be added to complete the 40 minute film, and that one clip would be from *The Simpsons* television show.

**Back in Canada**

Meanwhile, producers Murray and Hoban developed a screenplay with Charlie Rubin, who has written extensively for such television shows as *Seinfeld, In Living Color, The Jon Stewart Show, Aliens in the Family*, and *Zippy The Pinhead*. For the story, they created Phig, whose mission is to present to the audience several pieces of computer animation in a variety show format.

Spin Entertainment was brought on board to create the Phig and *CyberWorld 3D* environment section of the film. Colin Davies directed the 11 minutes of original CG segments. The *CyberWorld* gallery resembles the inside of a giant clockwork puzzle. Phig moves through space and the floor is formed to meet her. As the
blocking and staging was being worked out during the storyboard phase, they realized that they could take what had been a location change and turn it into something more. As Phig is falling through space, trying to grab sections of floor that are not forming fast enough to meet her, the audience gets to fall with her creating a little excitement in this 3-D world.

Jenna Elfman brought a lot of spontaneity to the character of Phig. Elfman vaulted to stardom in 1997 playing Dharma Freedom Finkelstein Montgomery in the television show Dharma and Greg. Elfman won a Golden Globe Award for the second season and three Emmy Award nominations. Dave Foley did the voice of Hank the Technician. Foley is known for his starring television role in News Radio. In addition to his numerous other comedy, acting, writing and directing credits, Foley was the voice of Flik in A Bug’s Life (1998). He reprised this role for a cameo in Toy Story 2 (1999) and It’s Tough to Be a Bug, The 3-D movie attraction that opened exclusively within the Tree of Life at Walt Disney World’s Animal Kingdom in 1999. It’s Tough to Be a Bug is set to open at Disney’s new California Adventure amusement park adjacent to Disneyland in Anaheim, California in the spring of 2001.

While Spin Entertainment was working in Toronto on the CG segments, Imax SANDDE Animation, Inc. was working in Montreal on 4 minutes of Cyber Critter segments under director Elaine Despins, an award winner artist, painter and animator. At SANDDE, the animators draw in dark room workstations, with the screen positioned as if they were sitting in the middle seat of a mini version of an IMAX theater. As part of the SANDDE team, Despins helped animate Bugs Bunny in 3-D for a Warner Brothers project derived from Space Jam (1996). Originally, the SANDDE segment was to be included with the other film clips, but the idea of the Cyber Critters being incorporated into the Phig story won out. Despins also designed the characters and created the model sheets, which help guide the animators to draw the Critters with consistency. One part of the model sheets is on paper with full color specifications and with all the expressions of the characters, and the other part is a wireframe spatial construction in SANDDE, showing the space and volumes to give an architectural base for the animators to work with.

Matt Frewer does the voice of the cyber-critter Frazzled. Classically-trained stage actor Frewer did the voice of Panic in Walt Disney Pictures’ Hercules (1997) (and it’s video sequels) and was the first actor to give voice to the Pink Panther in the syndicated cartoon series The Pink Panther (1993). But it was his creation of the computerized video jockey Max Headroom (1985), that brought him to the attention of American audiences.

Wireframe, a wholly owned division of Imax, produced CyberWorld 3D. It progressed from script to storyboard work and then to the layout process of the virtual cameras being placed in the geometry of the virtual sets. Camera movement and blocking were arranged, and at this stage things went from working on paper to working in a virtual world. Decisions could then be made for “virtual camera” placement. The animation phase involved more refinements. The voice recording was then married to the shot and more changes were made based on Jenna Elfman’s performance.

Once the animation was refined, they had gray shapes and backgrounds that were then handed over to the lighting and rendering team. The two production teams, working in two different cities, soon dovetailed to the point where each was supporting the other in very strong creative ways.

Spin used Maya to render close to 30,000 frames. They used an average of 200 processors and often as many as 700 processors to render the LF files that were needed. The new footage was joined with the eight older segments that had been converted to 3-D. A wonderful score composed by two-time Emmy Award-winning composer/arranger Hummie Mann was added and the film was ready for its premiere.

IMAX had a few press announcements during the release of the very successful Fantasia 2000 LF run during early 2000. There was an eight-minute reel shown to numerous theater operators which received some very good press and helped create renewal interest in the film. IMAX showed it at their IMAX Days get-together in April, 2000, where it also was very well received. Unfortunately, the film was not included in the films shown at the Large Format Cinema Association (LFTCA) conference held a month later in May, 2000. There was, however, an interesting presentation during the Spotlight...
Symposium session that followed the LFCA conference. Producer Don MacBain of PDI/Dreamworks presented a shot by shot comparison of the feature version scenes from ANTZ and the LF version segment from CyberWorld 3D. (MacBain was also very helpful working with IMAX helping to locate at least one stereo pair for this Stereo World article.) CyberWorld 3D did have its first industry screening on September 15, 2000, at the Giant Screen Theater Association (GSTA) annual conference held in Frankfurt, Germany.

The Eight Film Segments

Tonight’s Performance (REZNS, Los Angeles, USA) is a two-minute segment combining classic and futuristic images—a Jules Verne-inspired modern day opera in the clouds. REZNS founder Paul Sildo was executive producer and creative director for the piece. A large floating theater sets the stage for a young female performer in a fantasy ballet. Also included are flying whale-like reptiles, high-wire lighting gaffers and still-walking electrical engineers, structured to convey multiple stages of a circus, from set-up to performance. This is a beautifully done piece which I had previously seen, as it had been included in the Intel® 3-D video production shown at SIGGRAPH 1999.

Monkey Brain Sushi (Sony Picture Imageworks, Los Angeles, USA). Imageworks produced this for the 1995 SIGGRAPH computer animation conference. The slightly surreal segment was meant to convey the illusion of a seamless ride from beginning to end. Paul Haslinger sets it to a powerful score. Remarkably, it was created from start to finish in less than a month, produced in 3D Studio Max and output to 35mm Cinemascope. It has been recreated and edited for the 3-D 15 perf, 70mm (15/70) format.

Krakken: Adventure of Future Ocean (ExMACHINA, Paris, France) was designed by Dentsu Agency for Matsushita Electric Corporation (Panasonic) and directed by Jerzy Kular. It was originally produced in 1996 and was entirely rendered in stereoscopic HDTV. Originally six minutes in length with an additional six minute pre-show, the film has since been showing in the Digital Art Square, a new electronics area created by Panasonic/Matsushita Electric in the Osaka Twin Towers, shown on Panasonic digital projection equipment. This, like all the other work I have seen from ExMachina, is first rate.

Based on the British paleontologist Dougal Dixon’s studies and conjectures about animal evolution, the characters in the film include members of a family of Krakken (a future cousin of the sea-lion), as well as “sea-birds”, “sea-lizards”, “jellyfish-birds” and a predatory “jabberwocky”. Following its original debut, Krakken was awarded various international prizes at IBC (Amsterdam), Imagina Film Festival (Monaco) and Tokyo’s Nicograph computer graphics film festival in 1997.

The segment seen in CyberWorld 3D is an approximately three-minute excerpt from the original, which was then reformatted for the 15/70 format. As part of an ongoing partnership with IMAX, ExMachina did special effects and CGI for the 3-D films L.S. First City in Space and Destiny in Space (1994), as well as the Sony Pictures Classics-distributed LF 3-D feature Cirque du Soleil, Journey of Man (1999) (SW Vol. 27 No.1 pg. 20). Flipbook/Waterfall City (Satoshi Kitahara/Inertia Pictures, Inc. Tokyo, Japan & Los Angeles, USA). This segment consists of excerpts from two animated short films, Flipbook and Light and Water. These were created in 1997 and 1998 by Satoshi Kitahara as personal pieces while he was working at Sega Enterprises in Japan. Flipbook has been seen at SIGGRAPH 97, Art Future in Spain, Nicograph in Japan, Montreal’s 11th Computer Competition and at the Prix Ars Electronica in Austria. Light and Water has been seen at SIGGRAPH 98, Art Futura and Nicograph, as well as being included in the television specials Metropolis (Spain) and CyberCulture (France).

The Pet Shop Boys, Liberation (Eye-Animation/Pet Shop Boys, London, England) was released in the summer of 1994 as a music video, it debuted on MTV and was seen on numerous other music programs throughout the world. It won the Best Music Video Award at the SIGGRAPH WAVE 94 Awards and at the London Effects and Animation Festival. Originally created by Ian Bird and John Wake, additional animation and effects for CyberWorld 3D were specially constructed including three completely new scenes and 85% of the material was re-rendered by animation director Ian Bird and senior animator Harry Michalakeas. Eye is the only UK company represented in the film. I thought this to be the only segment that went too long. Perhaps we didn’t need three new scenes?

Joe Fly & Sanchez: Mostly Sports (Spans and Partner, Hamburg, Germany) is a delightful animated short, one of my favorite parts of CyberWorld 3D. It was originally shown at SIGGRAPH 1995’s electronic theater. It has garnered multiple awards including; People’s Choice Award and winner of the Fiction Category at Montreal’s Images du Futur festival, a World Silver Medal at the New York Film Festival and a Best of 3-D Animation award from Dr. Dotzler Medien-Institut in Germany. It has been shown on several European networks, Including Premiere TV and Germany’s ZDF.

The original film was rendered in 2-D and distributed on 35mm film. Peter Spans, who also developed and directed the recreation for CyberWorld 3D, wholly developed it. The approach and challenge during this production was to combine lovable character animation with the very complex backgrounds, all seen from an insect’s perspective. Almost one hundred percent of the original material was redone when recreat-
Homer Simpson lost in cyberspace in an IMAX 3-D version of the Simpsons show Treehouse of Horrors III, a Halloween special that aired in 1995. As in the original TV show, Homer enters another dimension and is drawn as a “3-D” computer graphic—but this time in actual stereoscopic depth filling the IMAX screen.

Presented by IntraP, an Imax Ltd. production ©The Simpsons, Homer, Twentieth Century Fox Television/Pacific Data Images

The original data for presentation in the 3-D 15/70 format.

The Simpsons, Homer (Twentieth Century Fox Television/PDI, Los Angeles, USA). The Emmy Award winner for outstanding animated television debuted on FOX Television over a decade ago, on January 14, 1990. The show is seen by 60 million fans weekly in more than 60 countries around the world. The Simpsons ranks among the world’s most-watched programs ever. It has won 15 Emmy awards, a Peabody Award, four Environmental Media Awards, three Genesis Awards and 12 Annie Awards.

It is not surprising that Homer Simpson in 3-D has been one of the selling points of CyberWorld 3D since IMAX lined up this sequence for the film. The sequence included is from the Treehouse of Horrors III, Halloween special that aired in 1995. In the original version, Homer steps into another dimension and is drawn as a 3-D graphic Homer Simpson, very cool indeed. But now he is actually in stereo-scope 3-D, even more cool, especially on the large (very large) screen. I remember looking forward to seeing this very much-publicized episode of The Simpsons when FOX was advertising that Homer would enter the third dimension. When I heard that IMAX would be including a segment from The Simpsons, I immediately knew which segment they would be using.

The Simpsons segment begins as it does in the original episode, with Homer running to hide from his wife’s Sisters who are coming to visit. The animation house, Film Roman, draws Homer as he normally appears with traditional animation. It is interesting to notice the screen image without your 3-D glasses at this point. The image of The Simpsons is in a 2-D box, much like a television set. The image is standing out in front of the screen, so even though it appears to be a 2-D image, it is a double image, since our eyes are viewing it in front of the stereo window. Homer then goes through a doorway behind a bookshelf into this other dimension. The 3-D animation work was done by PDI (Pacific Data Images), who also did the 3-D conversion for the LF release.

Antz (PDI/DreamWorks, Palo Alto, California, USA) the feature film Antz was released in October 1998. It is an animated romantic comedy adventure starring the voices of Woody Allen, Dan Aykroyd, Anne Bancroft, Jane Curtin, Danny Glover, Gene Hackman, Jennifer Lopez, John Mahoney, Paul Mazursky, Grant Shaud, Sylvester Stallone, Sharon Stone and Christopher Walken. In the feature length film, Z-4195, a worker ant voiced by Woody Allen, becomes an unlikely hero. PDI/DreamWorks took the bar room scene and converted it to stereoscopic 3-D. This scene has Woody Allen as Z-4195, Sylvester Stallone as his best friend, a soldier ant named Weaver and Sharon Stone as Princess Bala.

Originally, when there were talks about converting some footage to stereoscopic 3-D for the upcoming IMAX project, they were considering about five different sequences from Antz before deciding on the bar room sequence. Going back to the original files to convert to 15/70 3-D was a huge task. Initially, some said it could not be done. They had to revive the “job” that was about three versions of their operating system old. Because PDI had done the Simpsons piece, they already had an IMAX 3-D “camera” in their pipeline. That assisted them with the second eye image and automatically added the additional one-third to the top of the screen image.

They worked the first couple of weeks on about 25 shots before they realized that they hadn’t found the sweet spot for the LF screen. They also realized that a lot the periphery of the screen wasn’t all that important, the top third, the roof of the ant bar, the textures, the lighting—as long as something was on the screen, the viewers were drawn to watching were the dialogue was coming from. Having learned this, they went back and started reformatting and got through about six shots a day. Over about a four-week period, they got through about 89 shots, which was about five minutes of material. One of the main things they had been concerned about was whether the textures would hold up. But since they
were widening the angle of view, they had no problems with this. Essentially, they were taking the original 4-perf/35mm frame and placing it in the middle of the 15-perf/70mm frame and widening the view, so they were still working with almost the same resolution.

PDI did a shot-for-shot conversion—every shot is included—but there were a lot of changes made. Earlier this year DreamWorks SKG acquired a majority interest in Pacific Data Images (PDI), forming PDI/DreamWorks. The folks at PDI might have been a little nervous when they showed the 3-D footage to Jeffrey Katzenberg, but the footage was approved.

Planning to convert a CG film to 3-D from the beginning of the process is the more economical way to go. This is just what DreamWorks is doing for their next LF 3-D CG animated film. They were so pleased with the 3-D Antz that they are planning a 3-D holiday 2001 re-release of their next computer animated film Shrek, which is being released for a summer 2001 2-D 4/35 multiplex run.

On October 6, 2000, CyberWorld 3D opened across 21 screens, with a weekend box-office take of $278,199 ($13,248 per screen). On October 13, 2000, it opened on 8 more screens grossing $11,162 per screen for that week (number 22 on the Variety box office top 60 list), making it one of the top per-screen performers. By the end of this year, is should be playing in over 50 theaters. CyberWorld 3D is the first feature in IMAX's Family Animation Series, which will also include the IMAX-financed Gulliver's Travels in 3-D, which is rumored to be delayed, due to production problems. Following the record-setting box office release of Fantasia 2000: The IMAX Experience, IMAX is looking for more co-ventures. Now that I have seen and enjoyed what I consider the previews, I am looking forward to the next co-venture, which will be the fall 2001 IMAX 3D presentation of PDI/DreamWorks, computer-animated film Shrek. More information about CyberWorld 3D can be found at the IMAX website: http://www.imax.com/cyberworld.

Please enroll me as a member of the National Stereoscopic Association. I understand that my one-year subscription to Stereo World will begin with the March/April issue of the current year.

[Checkboxes for U.S. membership mailed third class ($26), U.S. membership mailed first class for faster delivery ($38), Foreign membership mailed surface rate, and first class to Canada ($38), Foreign membership mailed international airmail ($56), Send a sample copy ($5.50)]

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The Only National Organization Devoted Exclusively To Stereo Photography, Stereoviews, and 3-D Imaging Techniques.
New View-Master Circuit

Stereo fans who make View-Master reels should be pleased to hear that a new circuit has been started under the stewardship of Mitch Walker featuring this format. It is already underway with a minimal list of participants but more people are eagerly desired. Anyone interested in joining is encouraged to contact membership secretary Shab Levy (see below).

2x2 Matched Pairs

While at it, I might as well appeal to those working in 35mm matched pair stereo (anything mounted in 2x2 inch 35mm mounts, however cropped). It is apparent that many are working in this area of stereo imaging which features the freedom of one-camera-stereo or matched 35mm cameras mounted on a rig. Our 2x2 circuit has been operating since 1988 and has been a very successful, according to the participants, over the years.

However, of late, due to normal attrition and death the route list has shrunk. At the same time new applications have fallen off. People seem busier these days and many clubs and volunteer organizations are feeling the pinch. There is fun in the folios that is hard to duplicate elsewhere. Many lasting friendships have been forged in the Society folios. I know that the 2x2 makers are out there, why not join in the fold?

Alpha Transparencies

Secretary Naoma Roe is inaugurating two new folio boxes with special themes for the participants of this, our oldest continuously operating circuit. Alpha members who work in slides mounted in Realist-compatible format will shortly be marking the end of a half century of pleasure enjoyed by the many stereographers who have belonged to the circuit during that time.

Seton Rochwite

Mention of the Realist system of stereo photography reminds us to take note of the passing of its developer, Seton Rochwite, at the age of 95. Mr. Rochwite was a member of our Stereoscopic Society (member #309) many years ago—before he brought his system into being and changed our concept of what form stereo photography should take in the hands of amateurs (and others). This was the first really handy method to make stereo pairs and democratized what was sort of a narrow group of specialized photographers who dealt in such things and talked only to each other (if they could make contact—no easy thing in those days).

Cyber News

Digital photography is on the move these days and the signs and smell of change are in the air. Stereography is being affected along with all other parts of the world of imaging. The Cascade Stereoscopic Club of Portland, OR, in its year 2000 Exhibition in October added an electronic/digital section for the first time. The SSA cyber circuit, lead by Craig Daniels, continues to circulate discs along a route list of about 15 members.

Accolades

A well-earned honor was bestowed on veteran SSA member and NSA Board Chairman Bill C. Walton at the Photographic Society of America International Conference at Albuquerque, NM. He was elected Associate, Photographic Society of America (APSA) and received his certificate at the Honors Banquet. Unless I am misinformed, he is first person to receive this honor as a result of strictly stereo card activities. Paul Wing was his Sponsor while Stan White and Larry Moor were his Endorsers—all well known SSA and NSA members. The citation on the certificate reads, “For his outstanding contributions as the Director of the PSA Stereo Card Circuit, for his many stereo card articles in the PSA Journal, his contributions to the National Stereoscopic Assn, and for his enthusiasm in encouraging stereo newcomers to enter the PSA Stereo Salons”. There were 17 people who received APSA status that Saturday night.

Exhibition Results

Judging of the year 2000 (5th annual) SSA International Stereocard Exhibition was held on June 3 in Atlanta, GA, under rules and procedures consistent with Photographic Society of America standards. Accepted viewcards were displayed at the NSA Convention in Mesa, AZ, as well as at two other locations at later dates. Among those accepted views the following were deemed worthy of awards, as follows:

Best of Show
"81mm Mortar Rounds" by Bill C. Walton
2nd Place
"Showers Before Sunset" by Steve Dudley
3rd Place
"Moon Over Miami" by Robert Bloomberg
Best Photojournalism
"The Firebox of Locomotive 261" by Eileen Bohman
Keystone Award for Best Portrait
"Supplicant at the Table" by Bill Patterson
Ray Bohman Award for Best Scenic
"Foggy Morning" by Mary Ann Rhoda
Infinity Award for Best Hyper
"An Eyeful of Paris" by David Saxon

(Continued on next page)
Reviewing a reprint of an article that originally appeared in *Stereo World* makes it hard to maintain any semblance of objectivity, but it helps, in this case, that the feature in question was presented with the Berkowitz award for best historical article at the 1997 NSA convention in Bellevue, WA. Seneca Ray Stoddard: Preserving the Adirondacks in Stereos and in Person by Lois and Guenther Bauer was the cover feature in Vol. 23 No. 2 and represents the best type serious research and writing to appear in *SW*. By combining some of the political history of efforts to preserve the region from total development with the story of Stoddard’s photographic and business career, a strong sense of the significance of his stereoviews is provided by both the text and the impressive views reproduced.

Now those views illustrating the article are available as reproductions printed full size on one side of loose, heavy paper pages. This allows them to be trimmed for viewing in a standard stereoscope or left as-is for viewing with the “3-D Book Viewer” included with the view pages and the text booklet. (See *SW* Vol. 26 No. 1, page 26.) The complete packet is titled *Adirondack 3D: Seneca Ray Stoddard Preserving the Adirondacks in Stereos and in Person*. “Museum Packets” of this quality have the potential of greatly spreading awareness and appreciation of the place of stereoscopy in the history of photography, not to mention awareness of the NSA as a source of information on both historic and current stereoscopic imaging. The viewer and printed materials of the packet come in a reusable plastic storage sheet protector and are published by Stiles Studio, publishers of *Stereoscopic Saratoga Springs*—a volume reproducing over 60 historic views of the city.

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**The Society**

(Continued from previous page)

Best Monochrome
"No Alley" by Brandt Rowles

Best SSA Member
"Classical Thai Dancing" by Richard Twichell

Best Novice
"Still Life" by Faramarz Gahremanifar

Judges Choice
"Danielle" by Donald Watten

"Venus Unzipped" by Peter E. Hoole

"Inspiration Choice, Yosemite" by David L. Thompson

Honorable Mention
"Dana" by Steve Dudley

"A Chinese Idyll" by Peter E. Hoole

"The Big Bang" by Gene Kirksey

"Endeavor Replica-Wheel" by Shab Levy

"The Old Church" by Shab Levy

"Floating Globe" by Joan Stenson

"Old Oak In Winter" by David L. Thompson
Contrary to the assumptions of many, the use of sheet metal in architecture isn’t limited to roofs of gas stations in rural Mississippi or airplane hangers in Greenland. It has long been used as a substitute for heavier materials both inside and outside, with few people ever guessing it’s not the actual plaster or stone it resembles. Some of the most impressive textured ceilings in the most elegant of older homes are sheet metal panels. And outside, the use of sheet metal isn’t limited to theme parks or movie sets.

Following a hurricane-force windstorm several years ago in Portland, Oregon, residents at first thought winds had been strong enough to blow the stone sides off the massive bell tower of a downtown church. Closer examination revealed pieces of painted, stone-shaped sheet metal dangling from the skeletal framework of the top third of the tower, standing far above the true stone base. What so many had assumed to be a heavy, European style structure was in fact the work of skilled sheet metal workers and a cost and weight conscious architect.

Fans of This Old House on PBS know that metal as a durable—and expensive—roofing material has been making a come-back recently. But pressed for an example of sheet metal in other than roofing, decorative or imitative architectural use, most people would be hard pressed to come up with many examples other than quonset huts, car washes or garden sheds. In fact, sheet metal of various types has been used creatively as a key architectural element in projects around the world for several years. Three examples of innovative and forthright use of metal by architect Frank Gehry are explored in the latest View-master packet from View* Productions titled Frank Gehry: Sheet metal. Each of the three reels covers a different project, with reel 1 devoted to a 1988 exhibit in Washington, D.C. Commissioned by the Sheet Metal Workers’ International Association in honor of its centennial, the Sheet Metal Craftsmanship Exhibit pavilions were constructed by union members in the Great Hall of the National Building Museum (formerly the Pension Building, 1865). Completed in two months, the temporary structures were clad in steel, brass and copper. NSA member Michael Kaplan’s stereos of the exhibit provide a dramatic record of the bold use of materials in the large, almost abstract sculptured creations housing the exhibit.

(Continued on page 35)

"View from east" Scene 1, Reel 2, from Frank Gehry: Sheet Metal shows the lead-coated copper facades of the Center for the Visual Arts in Toledo, Ohio, through the sculpture "Blubber" by Mark de Suvero. Stereo by Michael Kaplan ©2000 View* Productions

Frank Gehry: Sheet Metal
Fisher-Price is fulfilling its promise to provide us with new and innovative View-Master creations. From the View-Master Discovery line of products comes a new item—the Discovery Channel Projector/Telescope combination.

The projector is a variation of the standard View-Master Super-Show projector. It uses a KPR 113 Krypton light bulb for illumination and sits on a tripod base that also serves as a carrying handle. By use of an adjustment knob, the device can be pointed to project the image onto a wall, ceiling or other surface. There is a simple off/on toggle switch on the right side of the projector.

Reels are inserted into the front end of the projector. Instructions indicate that the reel should be inserted with the printed side to the rear, but on the model we tested, certain reels would not advance properly regardless of how they were inserted. The reels we used were not "bowed" in any way, so it's a mystery as to why some seem to work fine and others have problems.

The simple focus knob on the side of the projector is big enough to find even where the room is dark. A handy reel storage compartment sits atop the projector and holds about a dozen reels. Access to the bulb is located in the reel storage compartment, making replacement easy. By turning a plastic screw located in the battery compartment door the bulb brightness may be adjusted. However, we found that the bulb causes distortions in portions of the projected image no matter how you adjust it.

The refracting telescope has 17.5x magnification and works fairly well! You must remove the View-Master reel before using the telescope portion. That's what makes the reel storage compartment a neat part of the overall device. Some basic telescope tips are included with the packaged instructions, making it easy to enjoy as soon as it's removed from the box.

Glow-Bright Virtual Viewers

New, clear, glow-bright "iMac" look Virtual Viewers were introduced at the end of August. These viewers are exclusive to Target stores nationwide. Initially two colors are being produced—orange and green. Blue, red and yellow will follow.

It took a great deal of material testing to develop this viewer. We are truly amazed that this product came about as a result of a suggestion we made to Fisher-Price. Making a clear viewer usable is not an easy thing to do. Too much light coming into the viewer from the sides can create some viewing problems, but Fisher-Price has done a great job in choosing plastic that is translucent but still sufficiently dark to not disturb the viewing to a great extent.

Aiming the viewer at a single light source works quite well, but this is hard to do when looking at the image in a Target store where there is so much harsh, diffused fluorescent lighting. Some purists may find the translucence objectionable, but if this is the case you are missing the point of the viewer. People love to see what's on the inside, and now we can.

We found that some of the viewers fail to mask out the reel advance rectangles all of the time, so you get a bright spot of light at

(Continued on page 39)
Photokina 2000: Photographic 3-D Sags, Digital Systems Multiply

by Dieter Lorenz

Actually, the 3-D news from September's Photokina 2000 Exhibition in Cologne, Germany, was not overwhelming, especially with the absence (as in 1998) of the well known RBT company. The change from common chemical photography to electronic and digital imaging could not be overlooked.

The New Loreo 321

Nevertheless, an interesting new photographic stereo camera was introduced: the new Loreo. This name has been familiar over the past ten years for a simple, fixed focus camera for 35 mm color negative film. The crossing image paths behind the lenses results in prints with image pairs correctly arranged for viewing without cutting and transposing, right as they come from the lab.

The new Loreo 321 abandons that principle, using two lenses side by side as in common stereo cameras. That way, the intruding reflections caused by the mirror system of former Loreo models will be avoided. The crossing image paths now happen in the redesigned viewer, so that prints can still be viewed without cutting and mounting. A special novelty is the possibility of changing between “Stereo” and “Mono” from image to image. Either a stereo pair of two vertical half frames or one full frame image can be produced. The Loreo 321 shown at Cologne was a prototype. Mass production was announced for the beginning of 2001.

High-End Medium Format Stereo

Gilde cameras for panoramic and stereoscopic photography were on display at the Linhof booth. These produce either 6 x 17 cm panoramic photos or stereo pairs of 6 x 7 cm images on 120 film. Linhof is expected to take over distribution of these cameras, which have been improved in some details over the original models. (SW Vol. 25 No. 5, page 32.) Dr. Gilde also displayed two new stereo rigs. First was a stereo telephoto system consisting of two Pentax MZM SLRs with 500mm lenses, mounted on a bar on which they can be shifted between a 30 cm and a 50 cm stereo base. The second was a pair of the very thin body Ricoh 35 mm GR1s cameras, mounted with the bodies overlapped for a stereo base of 66 mm. Because of the thin bodies of these cameras, the different distances are low enough to be neglected.

The Rolls Royce of Viewers

EMO of Wetzlar showed an improved model of its Macromax stereo slide viewer, well known in Europe for many years and one that could be called the “Rolls

Royce” of stereo viewers. It consists of two lenses with fivefold magnification, the quality of which is the same as that of camera lenses. These are mounted on a bar (either for 41 x 101mm or for two 2 x 2” slides) on which they can be shifted and pivoted.

Bonum Mounts
The Bonum 2 x 2” slide frames for stereo mounting are still available, but the distributor has been changed. It is now Plawa Feinwerktechnik of Uhingen, Germany.

Seagull Lenticulars
Seagull of Shanghai, China showed the prototype of a new stereo camera for taking six 6 x 4.5cm photos on rollfilm for lenticular prints. This camera, previously announced at Photokina 1998, provides three exposures on 120 film and six on 220.

Electronic Stereoscopy
As mentioned above, the tendency in photography in general and also in stereoscopy toward electronics cannot be overlooked, at least for the professionals. ViDiVis, located in the vicinity of Munich, offered one of its numerous 3-D TV systems named Twin Eye. This consists of a case with two small video cameras mounted side by side. The 3-D images are transferred on line sequentially to a screen where they can be observed with shutter glasses. Applications with this and more specialized equipment cover a wide field from microscopy to medicine (especially endoscopy), to video conferences and video games.

Digital 360° 3-D
An amazingly simple solution for digital 360° panorama imaging was introduced by the Dr. Clauss Bild- und Datentechnik GmbH (Image and Data Technique, Inc.). The camera, primarily for flat panoramas, is a rotating one, imaging with a 2048 pixel CCD array using a fish-eye lens. The rectification of the image data is done with spherical coordinates. These simplify the joining of panorama strips taken at different elevations, for which the camera can be adjusted vertically. In this way a complete hemisphere can also be imaged. For 3-D panoramas, two strips are taken via a narrow mirror strip, slewed off axis once 4.5 cm to the left and once 4.5 cm to the right, which leads to a stereoscopic base of 9cm.

Lenticular 3-D Through a Camcorder
Pierre Allio from APLM of Paris presented his invention, a surprisingly simple 3-D video system. This consists of an optical device in front of a common camcorder.

This device has four cylindric lenses on the front side and a concave shape on its backside. It produces four stereo frames which can be viewed on a lenticular video screen. There is already a lot of interest in this system in France. Licenses were sold to France Télécom, the French Army, and to Sextant Avionique. The latter plans applications for air traffic techniques.

Autostereo Via Wavelength Selection
The 4D-Vision company demonstrated a new autostereoscopic display system, the main feature of which is called a “wavelength selective filter array”. This can be mounted as a foil on a video screen and creates for each individual pixel of an image a wavelength and position-dependent spreading in different directions. That way, each eye looks at another stereo frame of the eight produced for this system. For correct 3-D vision the viewing position is limited, as is the case with lenticular screens. But because of the eight stereo frames the field for correct viewing is relatively wide. The color selection applied to the pixels is compensated for by the eyes merging neighboring ones, requiring that the viewing distance not be too
close. Because of the eight stereo frames required for this method it might be useful mainly for synthetic, computer generated images.

**Motion Pro Virtual Images**

VISUCOM of Heppenheim (near Darmstadt, Germany) showed image sequences in 3-D on a lenticular video screen (VC Pro 15/18), developed by Phillips in cooperation with VISUCOM. The main product of this company, however, was the Motion Pro system, developed mainly for advertising applications. Objects, partly fixed and partly in motion, are three dimensionally “directly projected into the eyes”. A moving object on which attention is focused seems to fly against the viewer. This is caused by an afocal projection system from which virtual images arise with a surprising 3-D effect.

Another 3-D product distributed by VISUCOM comes from the Japanese Photo Craft Company of Osaka and Tokyo. It consists of digitally stored stereoscopic images for lenticular prints into which actual digital camera photos (however only in 2-D), can be copied. This system is proposed for fun parks in which visitors will get lenticular prints of their own, seeing themselves, face to face with Dinosaurs, etc.

**Digital Conversion, Projection, etc.**

A number of companies, mostly young ones, are producing software for digital 3-D imaging and conversion. The 3D-Project, Inc. has developed a software package with which non stereoscopic perspective image sequences can be converted to real 3-D on line. The 3D TV company goes one step further: it converts 2-D scenes into 3-D by using information for the third dimension derived from movements in the scenes. SMI Reality Motion Systems has developed a 3-D Motion Tracking System with video scenes as an input. Last but not least, the Dortmund Institut für Roboterkforschung (Institute for Robotic Research), with some partners in the booth of the Liesegang company of Germany, a 3-D simulation of Virtual Reality with synthetically generated image sequences into which digitized real pictures could also be inserted. These were presented via rear projection by two polarized video projectors. Also, the Dr. Dotzler Media Institute ProVision of Frankfurt on the Main presented lectures on methods of electronic stereo projection. All these activities helped make clear what digital data processing is able to do for 3-D today. One may wonder where the future developments will go.

Finally it should be mentioned that as in 1998, the DGS, (German Association for Stereoscopy) had its own booth at Photokina 2000 where it also promoted the ISU.

**Stereo Product Information Sources**

- LOREO Asia Ltd., Rm. 7/7/F., New City Centre, 2, Lei Yue Mun Road, Kwan Tong, Kln, Hong Kong. Tel 00852 25 24 85 49,
Finding Depth in Sheet Metal

(Continued from page 30)

Reel 2 covers Gehry’s 1989 Center for the Visual Arts in Toledo, Ohio. Built adjacent to the neoclassical Toledo Museum of Art, the center provides art studio, classroom, gallery and office spaces for the University of Toledo. The south facades, forming two sides of an outdoor sculpture court, are of green-tinted glass; the volumes facing north are clad in lead-coated copper. Most of the stereo impact in this reel is provided by the sculpture areas and the glass wall panels. The amazing array of shapes formed by the metal clad parts of the building would be interesting to see in some hyperstereos, but View* Productions is devoted to the most accurate possible documentation of what an architecturally aware visitor to a site would see. Their success in that effort has earned praise from the most respected architectural institutions and publications, and probably means more in the long run than any “wow” factor from View-Master collectors and 3-D enthusiasts.

Reel 3 literally glows with reflections from the stainless steel covering the 1993 Frederick R. Weisman Art Museum in Minneapolis, Minnesota. Located at the edge of the University of Minnesota campus overlooking the Mississippi River, the museum’s exhibit galleries and support spaces are enclosed in a simple brick box that sits atop several levels of parking. The sculptural entry canopy and west facade are clad in stainless steel. The building’s combinations of interrupted curves, sudden sharp angles and slopes make it impossible to describe in words. Flat photos (as on the packet cover) give only a hint of the shining complexity revealed in depth on the reel.

Included in the packet are notes discussing the popularity of Gehry’s work, and the architect’s own thoughts on the profession of architecture. Frank Gehry: Sheet Metal is the 4th in the series of architectural View-Master sets from View* Productions which include Bruce Goff: 3 Houses (SW Vol. 24 No. 5 page 13), Fallingwater: Wright and the 3rd Dimension (SW Vol. 25 No. 6 page 25), and Johnson Wax: The Wright Buildings (SW Vol. 26 No. 6 page 37).
First Internet PSA Stereo Exhibition

The world’s first Internet Electronic/Digital (E/D) competitive stereo exhibition (with entries submitted, judged and exhibited via the internet) was recently held by the Cascade Stereoscopic Club (CSC) in Portland, Oregon. Along with traditional mail-in slide and card sections, the E/D section was judged October 21, 2000, but by a separate panel of judges sending in their votes over the internet from three different countries.

Stereographers from nine countries entered the Second Cascade International Stereoscopic Exhibition 2000, an annual PSA recognized event. Rules for the new E/D section stipulated up to four entries per person, sent as email attachment JPEG files consisting of left-right-left triplets for easy free viewing. Each image was also to be sent as an anaglyph to provide a larger version of the stereograph for judging and exhibition. Entrants first had to return an entry form and fees by mail to the CSC. They were then given a special access number and the email address for submission of their images.

While traditional postal entries of slides and cards far exceeded Electronic/Digital entries, this first international E/D competition is expected to inspire more such sections in other exhibitions—eventually making E/D image sections an equal segment of exhibitions with stereo slides and cards. Selectors for Internet E/D images were Allan Griffin in Australia, Boris Starosta in the U.S. and Dale Walsh in Canada. All the entries in the E/D section were displayed on the CSC web site following the judging, along with winners in the other sections. Top three winners in the E/D section were:

1st: “Elgin Watch” by David Allen
2nd: “Goddess of the Hunt” by Diane Rulien
3rd: “Which Twin has the Toni” by Norman B. Patterson

Selectors for the Slides and Cards sections were Mary Ann Rhoda, David Kesner and Mark Willke. In the Stereo Cards section, the top three winners were:

1st: “Mille Fiori” by Klaus Kemper
2nd: “Stargazer” by Norm Henkels
3rd: “Clouds Above the Caribbean” by Steve Dudley

In the slides section, the top three winners were:

1st: “Whitewater Slalom Event” by Allan Griffin
2nd: “Star Gazer Lilium” by Nancy Moxom
3rd: “Golden Tresses” by Donald Wratten

For more information, contact the Cascade Stereoscopic Club, 2244 NW Quimby St., Portland, OR 97210, www.cascade3d.org.

Olympic Depth From Sydney

The special October 18 Olympic Commemorative Issue of Sports Illustrated provided stereo enthusiasts as well as the rest of the world with “22 pages” of 3-D coverage of the 2000 games. There were actually only 14 color anaglyphs, as eight of the images were double-page spreads, but the first issue of the magazine to include sports-action stereos features one on the cover. Several ads and an anaglyph of Sports Illustrated stereographer and NSA member David Klutho provide additional depth to the issue.

Whether the stereos in this issue are studied with the attention given to those in the SI swimsuit issue earlier this year is open to question. Casual readers might not bother to spread the magazine flat under a strong light to get the full impact of the large anaglyphs—many much more detailed than the images in the swimsuit issue.
Even the best color anaglyphs (and many of these come close) suffer from having their fused simulation of spatial depth drug literally through the gutter as publishers indulge their passion for big impact, double-page pictures despite the distortions to stereo viewing.

Especially impressive in the SI “Going Deep Down Under” section are the shots of the Women’s 100 Meter Hurdles, Men’s Mountain Biking and Beach Volleyball. Ghosting and color interference can be found somewhere in nearly every image, but most require some searching. While elements of some images have a cardboard cut-out look, the overall impact is one of clear depth, with the inherent limitations of color anaglyphs minimized as much as possible. Page 12 of the issue describes some of the complexities of stereo sports photography and anaglyphic reproduction, even mentioning that David Klutho is a member of the NSA and ISU!

According to Ron Labbe, NSA member and 3-D technical consultant for SI, "The SI team was by now much more familiar with the format, and didn't need much hand-holding." Ron did the 3-D conversions on the Toyota Tundra, Monster.com and Pfizer ads, the latter suffering from some anaglyph-unfriendly ad agency decisions. Although four million copies of the special issue were printed, some people had a hard time finding one at the usual sources for the magazine, and some outlets ran out long ahead of the November 10 pull date. Whether you’ve seen a copy or not, many more of David Klutho’s Olympics stereo are anticipated in the Stereo Theater at the 2001 NSA convention in Buffalo, July 19-23.

Stereo Imaging Technology Due in San Jose

High-speed digital stereo images captured at a million frames per second, finding things in turbid underwater situations with stereoscopic video, and getting used to hyperstereo images while manipulating remote telepresence equipment are just three of the topics to be covered at STEREOSCOPIC DISPLAYS AND APPLICATIONS XII January 21-26, 2001 in San Jose, CA. The conference is part of the symposium ELECTRONIC IMAGING 2001 SCIENCE AND TECHNOLOGY—one of four international symposia forming the massive PHOTONICS WEST event promoting and discussing the latest products and research in laser, optical, and electronic imaging technology.

The Stereoscopic Displays and Applications conference will feature three days of technical papers, projection and demonstrations by industry, government and academic researchers from all over the world. Just a few of the presentations scheduled include:

“Stereo at the speed of light: high-speed digital stereo imaging at up to 1-million frames per second”

“Potential benefits of stereoscopic video for visual detection in turbid underwater environments”

“Can telepresent observers learn to take account of enhanced binocular disparities?”

“Optimal usage of LCD projectors for polarized stereoscopic projection”

“Spherical stereoscopic sensor for 3D color imaging”

“Stereoscopic head-up display for aviation”

“Desktop autostereoscopic display with head tracking capability”

“Effects of display geometry and pixel structure on stereo display usability”

Keynote speaker for the conference will be Jeff Kleiser from Kleiser-Walczak Construction Company, who will discuss “Stereoscopic Computer Animation for Location-Based Entertainment”. Kleiser’s company did the stereoscopic computer animation for Universal Studio Florida’s very successful Spider-Man 3D theme ride (see SW Vol. 27 No. 1). Images from Universal’s THE AMAZING ADVENTURES OF SPIDER-MAN and the Robert Wilson/Philip Glass opera MONSTERS OF GRACE will be projected in 3-D along with work-in-progress images from Busch Gardens’ CORKSCREW HILL, slated for completion in Spring 2001.

Photonics West, with over 600 company exhibits plus 2,800 R&D papers and 100 Continuing Education Courses, will be in the San Jose Convention Center—which has expanded considerably since the 1982 NSA Convention was held there. Sponsored by the International Society for Optical Engineering (SPIE), home site for the event is http://spie.org/web/meetings/programs/pw01/home.html and the (Continued on page 39)
The Cascade Stereo Club of Portland, Oregon recently sponsored the world's first Internet Stereo Exhibition. The entries were all submitted over the internet and viewed by the judges in either cross-eye or parallel binocular freevision directly from the computer screen. Though the images of necessity were digital in nature as submitted, most of them originated as analog stereos.

For entry in the Internet Exhibition it was necessary to submit the stereo images in "triplet" form, as side-by-side stereo pairs except that the images were configured Left-Right-Left. That facilitated the judging in both cross-eye or parallel freevision. The award winning and accepted stereo pairs were available on the club's web site: www.cascade3d.org.

As groundbreaking as the Cascade Internet Stereo Exhibition is, this is not the first time that stereoscopic images have been displayed in the side-by-side format on computer or television screens. Taking the literal definition of "Television" (tele = seeing) we see the real utility and beauty of what the Cascade Stereo Club has achieved with the Internet Stereo Exhibition. They have facilitated the publication of stereoscopic images over great distances using the latest, most powerful form of tele-communication that we have.

On August 9, 1928, British television pioneer John Logie Baird transmitted side-by-side stereo pairs at his laboratories for the press using a 30-line spotlight system that displayed the left eye and right eye images alternately. At the receiver the images were displayed in rapid succession side-by-side and viewed through a prismatic stereoscope.

Shortly after these early stereoscopic experiments, Baird began experimenting with color television by scanning his subjects in an unlit studio using a sequential parallel strip of brilliant, pin-point light. A disc containing six segments with red, green and blue filters rotated in front of the beam of light. The beam was split with pairs of mirrors to record the subject from slightly different positions for stereo, and a revolving shutter ensured the left-eye and right-eye views were transmitted alternately.
The receiver was a black-and-white 500 line display—100 lines interlaced five times—with a repetition rate of 150 frames per second, and horizontal scanning. The display added color to the side-by-side stereo pairs with a rotating color filter disc synchronized to the studio scanner. On December 18, 1941, journalists sat in turn before Baird’s image-forming lens and saw the first stereoscopic television pictures in color to be seen anywhere in the world. An editor of “Electronic Engineering” magazine was present and photographed the color stereo pair directly from the screen of Baird’s receiver onto Dufaycolor film to record the event.

John L. Baird died on June 14, 1946 leaving his color TV work unfinished. At the time of his death he was experimenting with a special cathode-ray tube for stereoscopic television which used an internal revolving fluorescent screen. Nine years later, 3-D TV pioneer James F. Butterfield broadcast side-by-side stereo pairs on a daily basis in Mexico. The TV screen was split with left-eye and right-eye images running side-by-side which were viewed with unique prism glasses that fused the two images into 3-D.

Numerous experiments in Russia have taken place over the years with stereoscopic television. In his book “Stereoscopy” Nikolai Valyus writes (p. 245) that “the simplest method of making a television picture three-dimensional is to have two television cameras at the transmitting end and two receivers at the other and to use two channels...one for the left and one for the right picture.” Valyus notes, however, that “such a solution is not technically acceptable.”

Valyus then proposes (p. 246) “The transmission of two images of the stereopair may be made by a television camera having a single tube. Then the left and right images may be transmitted simultaneously if they fall within a single frame, or if they fall alternately upon the same tube.” The beauties of a unified system displaying a stereo pair seem obvious. Using the “triplet” form, the Cascade Stereo Club has electronically disseminated the stereo image in a highly practical manner.

References:
Hutchison, David, Fantastic 3-D, Starlog Press: 1982
Valyus, Nikolai, Stereoscopy, Focal Press: 1966

View-Master (Continued from page 31)

These viewers and the demonstration reels included with them are made at the Mattel plant in Mexico. All manufacturing operations completed their move there in August. Creative functions and film developing remain in the United States. A new version of the Virtual Viewer in solid orange has also been introduced, as well as a Discovery Viewer in silver-gray.

It’s great to see these wonderful new colors debut. Watching the internal viewer mechanism is sure to delight collectors of all ages. Although there are still some problems with the Virtual Viewer, it is apparent that Fisher-Price is making a dedicated effort to creating the best possible design.

NewViews (Continued from page 37)

page for the full schedule of the Stereoscopic Displays and Applications conference is http://spie.org/web/meetings/programs/pw01/confsl4297A.html. Symposium registration is set at corporate expense account rates, but admission to the huge floor of imaging system exhibits is free. Advance registration for the free exhibits is available at http://spie.org/forms/pwl01ex_regform.html. Contact SPIE at PO Box 10, Bellingham, WA 98227-1445, (360) 676-3290, e-mail: spie@spie.org.
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Homer Simpson gets lost in cyberspace in the IMAX 3-D film CyberWorld. The sequence is a 3-D conversion from the Simpsons show Treehouse of Horrors III, a Halloween special that aired in 1995. As in the original TV show, Homer enters another dimension and is drawn as a "3-D" computer graphic—but this time in actual stereoscopic depth. See Lawrence Kaufman's review on page 22.

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