A taste of the late ‘40s through the early ‘60s found in amateur stereo slides

by Mark Wilke

View-Master at the Cabin

This fun group of View-Master images appears to document a visit to some sort of log cabin by a large group of people. Unfortunately, the unlabeled Personal reels offer no clue as to the location or date of the trip, or who is shown.

At least two people there had View-Master Personal cameras with them. The first view includes a man holding one (and a second one took the photo). I wish I could see the View-Master reels he made, which probably show the photographer of the views printed here!

The next view includes no additional cameras, but captures some folks apparently having a good visit.

The boy with a Personal camera in the last view appears to be headed to the outhouse, but perhaps he and the person with the other camera were watching some passing wildlife?

This column combines a love of stereo photography with a fondness for 1950s-era styling, design and decor by sharing amateur stereo slides shot in the “golden age” of the Stereo Realist—the late 1940s through the early 1960s. From clothing and hairstyles to home decor to modes of transportation, these frozen moments of time show what things were really like in the middle of the twentieth century.

If you’ve found a classic 50s-era image that you would like to share through this column, please send the actual slide or a high-resolution side-by-side scan as a jpeg, tiff or photoshop file to: Fifties Flavored Finds, 5610 SE 71st, Portland, OR 97206. You can also email the digital file to sworld@teleport.com. If the subject, date, location, photographer or other details about your image are known, please include that information as well.

As space allows, we will select a couple of images to reproduce in each issue. This is not a contest—just a place to share and enjoy. Slides will be returned within 6 to 14 weeks, and while we’ll treat your slide as carefully as our own, Stereo World and the NSA assume no responsibility for its safety.
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Buy, Sell, or Trade It Here

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

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In keeping with the quaint local culture of the Los Angeles area, the 2012 NSA convention in Costa Mesa has been dubbed “3D-Con.” While the message may sound nerd-chic, there will be more of everything for every interest in a region combining a major history of stereoscopic interest with greater numbers of both collectors and practitioners than any other in the world. Plus, the “Dive-in Theater” is back again this year! (Maybe something about “Mesa” inspires it—either Arizona or Costa...)

For those of us stuck on this side of the Atlantic, the Stereo Theater will include “Brian May’s History of 3D” shown last year on the British Sky3D channel and featuring interviews with James Cameron, Ray Zone and Phil McNally as well as historical delights like accidental 3-D footage shot by George Melies’ linked cameras at the dawn of cinema itself. If you’ve had any doubts about attending, do read “Experience 3D-Con” in this issue.

WWW.New and Bright
In case you haven’t visited it lately, the NSA website has a new look thanks to new web master Mat Bergman. It’s bright, clean and easy to navigate. The NSA “mission statement” leads off the home page, with a site contents menu on the left. On the right is the current Stereo World cover, but tying the site even more firmly to the magazine is a change to “stereoworld.org” from “stereoview.org.” Stereoview will still get you there, but please use stereoworld.org in any promotional efforts from now on.

Amelia
This July marks the 75th anniversary of the disappearance of Amelia Earhart somewhere in the Pacific, and Richard Ryder’s “Personalities in Perspective” column in this issue provides details of the story along with a stereoview of the famous pilot. July will also see yet another intensive search for her plane, this time with some major funding involved and participation by the Discovery Channel. See http://tighar.org/Projects/Earhart/niku7.html.

Please start my one-year subscription to Stereo World magazine and enroll me as a member of the National Stereoscopic Association.

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I always appreciate getting feedback on the articles I do for Stereo World and I try to be most diligent in avoiding errors. In regard to the Harding piece, Gordy Hoffman, who is of course the greatest authority on personality stereographs, is quite right to point out that Keystone continued to incorporate presidential views in their series through Eisenhower. While I suspected that this might be the case, I was only aware of such views through FDR, hence the “at least” in the article. I probably should have checked with Gordy beforehand!

As to Ken Laker’s comment on Promontory Point vs. Promontory Summit, he is of course correct, as I well knew. In fact the completion point is variously referred to as Promontory Summit (geographically the most precise), the more generic Promontory, and (rarely and far too optimistically!) as Promontory City, as well as the somewhat erroneous but more commonly used Promontory Point. The latter term is even used in such prominent works as Dee Brown’s well-known history of the western railroads, Hear the Lonesome Whistle Blow. In fact the practice goes back to before the golden spike itself was driven on May 10th, 1869. As the ceremony got under way, Western Union telegrapher W.N. Shilling advised his listeners to stay off the line but to keep the circuit open for the hammer blows, and the word “done”—from, as he himself put it, Promontory Point! He at least should have known better, as he was from Ogden, Utah, and it is unlikely that Shilling’s was the first such misuse of the term, although it may have helped to perpetuate it some press accounts of the event. I should also belatedly acknowledge Robert G. Wilson’s excellent comments on Ontario photographer James Esson in the March/April 2011 SW in response to my earlier piece on the Philadelphia Zoo elephant herd. My overdue thanks to Mr. Wilson for this superb and most useful information.

–Richard C. Ryder

If you have comments or questions for the editor concerning any stereo-related material appearing (or missing) in the pages of Stereo World, please write to John Dennis, Stereo World Editorial Office, 5610 SE 71st Ave., Portland, OR 97206.

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Dear Fellow NSA Members,

The National Stereoscopic Association is again very grateful for the continued and increased generosity our members have shown us this year. Times are still very tough for many of us, yet I once again have the pleasant duty of thanking all of our marvelous members who have so graciously given of their money (and time) over the past year. The generous donors listed here have contributed financially to the organization. These donations totaling $6,809 have helped keep Stereo World filled with color pages. While this amount is down from last year, I am truly more concerned about our shrinking membership roster. Please help spread the word—NSA needs more members!

Stereo World has become more cost effective with the move to our more economical printer, but the United States Postal Service will be increasing our mailing costs every chance they can. Your contributions are still very much needed. With these increased costs, the NSA is still looking at ways to stay on budget and reduce any unnecessary expenses associated with distributing Stereo World magazine, and more members would certainly help. So my ongoing plea continues to be that we need your help to grow our membership. With the continued interest in stereo photography and 3-D movies, Stereo World magazine should be even more popular than ever. We have no advertising budget, so please help spread the word; the more members, the better the magazine and the organization.

To all who have helped in any way, my sincere ‘Thank You!’ for your kind support of the Association. To those who haven’t yet contributed, please do consider it, whether an additional $10 or $20 with your renewal (or at any time,) or some of your time and talent. Your contribution will be greatly appreciated. Also please let me know if you have any ideas for the NSA.

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

Not the least among these volunteers are the members of the NSA annual convention committees. These extravaganzas are the highlight of the 3-D year, featuring the stereo-related trade fair, many hours of great stereo projection programs, educational workshops and social events. I hope to see everyone this summer in Costa Mesa, California. We are always looking for individuals to chair future conventions and help out in many capacities.

I would like to remind you that you can also donate your old equipment and views to the NSA for its annual NSA Spotlight auction. This not only helps out the new collectors/stereographers, but the funds can also help our organization.

Once again, it is heartwarming to see this level of interest and support from the membership. Thank you for your donations and your continued confidence in the Association.

Best regards,
Lawrence Kaufman
NSA President
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May/June 2012 STEREO WORLD
The works of independent, small-town American photographers in the early 20th century have long gone unrecognized. Norwegian immigrant Ole Sigbjørnsen Leeland is one such photographer whose stereographs recount latent narratives of westward expansion and progress that explore town building and narrate a populist vision that demonstrates the value of stereoscopic vision in the history of American vernacular photography, the creation of images by amateur or little-known photographers whose main subject is everyday life.

Born in 1870 on a farm in Vest-Agder, a mountainous region of southern Norway, Leeland came to America in 1887. With a tradition of long-distance travel since Viking times, Norway, in the midst of dark economic times, treated emigration as a natural response to socio-economic circumstances. Rural Norwegians looked to America beaming bright with its promises of available land and a better life. Following a pattern similar to other Norwegian immigrants, Leeland tried his hand at different occupations and moved from state to state, living with one transplanted sibling and then another. He stayed first with a sister in Frankfort, Michigan where he worked as a watchmaker in her husband’s watch shop. Then in 1891, he moved to Hillsboro, North Dakota to help his brother in a new hotel venture.

A wild-western town originally settled by Norwegian pioneers, Hillsboro boomed thanks to the Northern Pacific Railroad and its 1864 government land grant. Promising a farmer’s paradise, Northern Pacific advertising pamphlets lured prospec-
tive homesteaders by offering cheap land and loans. This led to the Red River Bonanza Farm movement, a short-lived mass production enterprise that attracted much publicity as well as national attention to North Dakota.

Eastern businessmen and speculators entered the market, doing much to build the local economy in the short term. After investors tapped the federal subsidies of the Northern Pacific— that is, once the scheme paid off— the Bonanza farms disappeared as quickly as they had appeared, leaving local farmers to pick up the pieces. Nonetheless, the Red River Valley became known as one of the most fertile wheat-growing regions in the country. And Hillsboro, the business center for the Bonanza farm movement, thrived, thanks to the railroad's improved transportation system that brought people and goods to and from hundreds of isolated prairie communities. In this flourishing business climate, saloons and hotels did a brisk business with homesteaders, traveling salesmen, and professionals seeking success with the railroads and the federal subsidies.
a new location. So when Oscar Leeland opened the Leeland House on North Main Street and invited his brother to help him run the establishment, he probably held high financial expectations. Little is known about the hotel’s history. One small announcement in Hillsboro’s Norwegian-language newspaper, Statstidende (1899) recommends “Leeland House to those who would like to have a comfortable stay when in town. The price per night is only $1.00.” Leeland’s name appears on Hillsboro’s Tax List for the Year 1897. The following year, a mysterious entry, “Ole Leeland and Co.,” is listed owing taxes of $4.45. These taxes were not paid, and were later “cancelled by Co. Com. (County Commissioner) January 14, 1902.” Since his name never appears again in Hillsboro tax records, it is probable that Leeland left Hillsboro by 1899.

According to the 1900 South Dakota state census, Leeland was living with a sister and brother-in-law in rural Blaine Township, Jerauld County, South Dakota outside the town of Mitchell. Historian Odd S. Lovell writes that although North Dakota was the most Norwegian of all states, “By 1900, there were fifty-one thousand Norwegians in South Dakota, 12.8 percent of the state’s population.” Most of the immigrants were tied to farming and a rural lifestyle like Leeland, so how and where he learned the up-and-coming technology of photography is a mystery.

He most probably was self-taught, and may have been introduced to the modern invention while living in Hillsboro where two noted photographers worked: Clarence E. Fuller (1869-1962) and well-established Norwegian photographer Jakob L. Skrivseth (1853-1934), owner of a portrait studio that produced, as one account states, more than 100,000 portrait photographs from 1886-1902.

Like Leeland, Skrivseth was an immigrant, who had moved from state to state, trying his hand at different occupations. He worked in a store, then in a hotel and later took up photography in Albert Lea, Minnesota. After learning the business, he went on to make a name for himself in Fargo where in 1879 he was the first to open a photography studio within city limits.

A gregarious, high-profile personality who served as Hillsboro’s mayor, Skrivseth, most importantly, spoke Norwegian. It seems plausible to speculate that Leeland, a naturally curious tinkerer who had tried his hand at watchmaking, by corollary would be drawn to the popular invention of the camera and his fellow countryman’s photography studio.

What is known is that by November 1901, shortly after Leeland’s arrival at his sister’s home, he was advertising his photographic services in a nearby town’s newspaper, the Mt. Vernon News.

As described by photography historian Sarah Greenough, “The years between 1880 and 1917 have often been referred to as photography’s coming-of-age.” The practice of photography changed significantly during that time. Before then, most negatives were made with the difficult wet collodion process by which a heavy, fragile sheet of glass had to be coated with a light-sensitive material or emulsion, exposed, and developed within a short time. This changed with the invention of gelatin dry plates in 1871 and their improvements in the next several years. Emulsions became more sensitive and cameras were produced with faster shutter speeds, thus making them lighter, smaller and able to be hand-held.

Homesteading was rapidly placing people on what had earlier been empty land. These pioneers worked to build homes and businesses where none had been before. And even though photographic developments took longer to reach the American Plains, like their urban counterparts, new settlers wanted portraits long before the age of the casual snapshot. Nonetheless, in the countryside, photography was a profession with which income was directly tied to its
community’s fortunes. Like many rural citizens today, working hard on the farm does not necessarily guarantee an adequate income. By reaching out to photographic genres beyond portraiture, Leeland’s newspaper advertisement reflected his desire to take on any and all jobs with a camera, whether “landscape, portrait, or interior work.” Since portrait work was sporadic at best, it was not unusual for creative studio photographers to expand their horizons in hopes of turning a profit. As one photographer explained in Abel’s Photographic Weekly, “If I sat down in my gallery and waited for trade, I should grow slim.”

On 10 October 1902, Leeland advertised in the Mt. Vernon News, “My photograph gallery will be ready for business Tuesday. I will be here to serve you and my aim will be to please you. First class instruments, fine lights and up to date mounts, that will make you glad.”

When Leeland left his sister’s farm and moved to Mt. Vernon around 1902, it was a boomtown, but the boom turned to bust when “drought, grass-hoppers and poor farm prices” caused growth to cease. Keeping a photography studio in Mt. Vernon, Leeland soon moved to the more prosperous neighbor town of Mitchell, which was thriving as a
result of successful railroad development. One apparent symbol of Mitchell’s prosperity was its annual fall agricultural festival that began as the 1892 Corn Belt Exposition. Originally developed as a vehicle to encourage immigration to the state by promoting its land’s bounty, the event’s name was changed in 1905 to the Corn Palace Festival. Highlights, including live entertainment and heaping displays of South Dakota’s farm produce, attracted throngs of admirers. The exterior of the Corn Palace building was decorated with various colored varieties of corn, grains and native grasses, depicting geometric designs in the early years, and later, pictorial murals, making it an outstanding agricultural showcase. Thousands came into town to attend festival events and purchase mementoes and souvenirs, including portraits. Leeland must have hoped to exploit the city’s success and its visitors’ desires for photographic goods.

From an account in The Mitchell Capital of 18 March 1904, we learn that Leeland formed a corporation, a venture with local businessmen that seems to be anchored to the success of his patented “stereoscopic attachment.” The Leeland Art & Manufacturing Company, “organized some time ago for the purpose of operating photograph galleries and making stereoscope picture holders,” succeeds Rothenberger & Myers, photographers who “will continue to wait on customers and furnish the same high class work as heretofore. Arrangements will soon be made for the manufacture of the stereoscope picture holders and their distribution from the city. This invention has been pronounced by those who have seen it to be an article that will readily sell and as the cost of manufacture will be very small, the inventor and those who have purchased stock in the company feel they have a very good thing.”

On 19 May 1904, the Mt. Vernon News reported, “O.S. Leeland returned from Chicago last week where he had been to purchase the necessary machinery to be used in manufacturing his recently patented view holder. The company since their organization have [sic] about all the necessary arrangements made and the work of making this view holder will be pushed right along. Mr. Leeland reports the sale of over $45 worth of views [stereographs] of the recent Mt. Vernon fire last Saturday. Not such a bad day’s work.”

It is obvious that promise ran high for success with this stereoscope accessory; unfortunately, there is no evidence to date that the stereoscopic attachment was ever manufactured.

On July 5, 1904 O.S. Leeland received a U.S. patent for a stereoscopic attachment that he called “improvements in stereoscopic attachments.” He described, “The object of the invention is to produce an apparatus for a stereoscope in which a series of pictures may be held and conveniently displayed. It comprises curved tracks or byways supported upon suitable standards and adapted to receive pivot-pins projecting from the upper ends of a series of pictures and so arranged that a picture may be raised and turned over, which movement advances the next picture to a position to be viewed.” There is no evidence that the invention was ever manufactured for sale to the public.
the image’s space and therefore personally taking part in the experience—whether artistic, entertaining or educational—the stereograph had long ago captured America’s creative imagination. “By late 1860,” according to photography historian Keith Davis, “no fewer than 200 American photographers were producing stereographs on either paper or glass.”

The stereograph business waned but then rebounded in the 1880s thanks mainly to mass-market retailers and door-to-door sales. Companies like Underwood and Underwood sent teams of students into communities to systematically canvass neighborhoods. Stereograph historians William Culp Darrah and Richard Russack noted, “Mail order firms like Sears, Roebuck sold lithographed stereo views for eighty-five cents per hundred and the price for the stereoscope with one hundred

Unidentified view of boys wrestling on the ground. One of the onlookers is wearing a (baseball?) uniform of a team from Scotland, a town about 50 miles southeast of Mitchell.
cards was ninety-five cents. By 1900 there were six major producers, all in fierce competition with each other. Until that time, companies were selling sets of six or twelve views at a time; then entire series and special slipcases. By 1910, however, the Keystone View Company of Meadville, Pennsylvania had purchased its main competitors, including B. W. Kilburn Company, Underwood and Underwood, and H. D. White and Company, merging all of the images under a single imprint.

Stereographs can be important and useful primary historical sources. Providing a seemingly inexhaustible wealth of information concerning time and place, they often illuminate broader questions, such as in this case, the Norwegian-American experience. As entrepreneurial Leeland took advantage of this offshoot market, he was also in part responding to social influences around him.

The John Anderson Publishing Company of Chicago, publisher of Skandinaven (1866-1941), America’s largest and most influential Norwegian newspaper,* also produced books and stereographs, including a series entitled Norske Prospeketer, Byer, Grupper etc. In December 1876 the company opened Skandinavens Boghandel in Chicago, the leading bookstore for Norwegian books. Since the company had a large publishing arm as well as job-printing department, books published by the firm were not only distributed in the bookstore and by mail order but also through traveling salesmen who undoubtedly traveled through rural districts where Norwegian-speaking consumers would have been plentiful. A lack of surviving business records does not allow for a careful investigation into the numbers of books and stereographs published. But it is not a leap to consider that Anderson’s traveling door-to-door salesmen sold stereographs along with publications.

Individual photographers also sold stereographs and marketed them to the Norwegian-American audience in various ways—by subscription, through salesmen, in shops and photography studios. According to stereograph historian William Culp Darrah, Kurt Knudsen in Bergen during the 1860s and 1870s produced more than 750 different views of Norway.

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Mitchell and the 1904 Corn Belt Exposition

The year 1904 was important in the history of Mitchell, South Dakota.

The story began years earlier when the Dakotas made up Dakota Territory. Yankton, the first territorial capitol, was later moved to Bismarck, disappointing those who believed that the southern region should have the honor because of its greater population.

By 1880, Pierre, Mitchell and Huron sought the capitol status. When the territory was divided into two states in 1885, Huron became the temporary capitol. Later when South Dakota became a state in 1889, a fierce competition arose among Pierre, Huron, Watertown, Sioux Falls, Mitchell and Chamberlain. Pierre won by a large margin. But that did not stop the intense rivalry. Pierre was able to hold onto the title when the vote came up yet again in 1890. However, the rivalry still didn’t end. Soon the railroads entered the fray.

The Northwestern Railroad favored Pierre; whereas the Chicago, Milwaukee, and St. Paul supported Mitchell, each reflecting its own partisan business interests. In 1904, the Mitchell city fathers persuaded the state legislature to put the question of the capitol’s location to a vote of the people yet again. It was time to settle the issue once and for all.
with captions in the Norwegian language. A number were distributed in the U.S. to the Norwegian immigrant consumer through Christian Engell in Spring Grove, Minnesota although it is unclear whether he distributed the stereographs before he operated the Engell & Son photography studio (1880-1914). Waldemar Selmear, also of Bergen, produced views between 1885 and 1900, “many of which were sold to Norwegian families who had emigrated [sic.] to the United States.”

Andreas Larsen Dahl (1844-1923), a Norwegian immigrant from Valdres reported his profession as “daguerreian artist” in the 1870 U.S. census. Working out of De Forest, Wisconsin as an itinerant photographer, he traveled to supply the artistic needs of pioneer settlers, primarily in Dane County, Wisconsin, taking photographs often in front of their homes surrounded by prized worldly possessions. With his name on the cardboard mount “A.L. Dahl, Landscape Photographer” or printed on a glued-on label on the back of the stereograph, “Andrew L. Dahl, [Landscape] Photographer, De Forest, Wisconsin,” he also published multiple series of stereographs, among them, “The Beauties of the City of Madison and vicinity;” “Wisconsin Sceneries;” “Centennial Celebration of Madison [Wisconsin], 1876;” “The Synod at Decorah (Iowa)” in 1876; and “The Norwegian Lutheran College: Decorah, Iowa.” He sold these stereographs for 25 cents each out of his photography wagon.

On the other hand, Kristen Peder sen Myklebust (1869-1936) born in Hardanger, Norway, did not find inspiration here in the U.S. He returned home to photograph one of the most inspiring spectacular regions of the world, the picturesque Norwegian scenery of fjords, waterfalls and mountains. With these landscape stereographs in the “Views from Norway” series published from his Eagle Grove, Iowa photography studio, Myklebust assuaged the

Several years earlier, to promote settlement around Mitchell’s rich agricultural land, the Corn Belt Real Estate Association planned an annual harvest event. An agricultural extravaganza was not a novel idea. The nearby town of Plankinton erected a modest grain palace in 1891 (and again in 1892). And the town of Sioux City, Iowa had celebrated their great agricultural prosperity with magnificent buildings of corn annually from 1887 to 1891. With the opening of the Corn Belt Exposition in the fall of 1892, Mitchell entrepreneurs directly patterned the festival after the one in Sioux City.

That year, only twelve years old, Mitchell had fewer than 3,000 inhabitants. There were dirt roads for streets, uneven wooden sidewalks, gas lamps and flimsy buildings. Nonetheless, the festival was a success, attracting visitors from all over.

So it can be understood that in 1904 in an effort to outmaneuver the town of Pierre during this time of great competition for state capitol, the Corn Belt Exposition took on an even greater significance. After all, this was Mitchell’s selling point, one that Pierre could not match. The festival committee decided to go all out.

At the time, John Philip Sousa was a world-famous band leader who had recently represented the U.S. at the 1900 Exposition Universelle (World’s Fair) in Paris before touring Europe for several years. Why not hire a band that would attract eager visitors for miles around! Exposition Chairman Gale wrote to Frank Christianer, John Philip Sousa’s manager, who didn’t take the query very seriously. In consequence, he quoted an astronomical fee that he believed would stop the
homesick feelings of many fellow Norwegian-Americans. Without doubt with his photographic interests and his sense of curiosity, Leeland encountered stereographs. He may have also seen some series of Norwegian views or encountered door-to-door salesmen. He probably even tried his luck selling stereographs to the Norwegian-American market as evidenced by captions on some stereographs in the Norwegian language. South Dakota, however, had fewer Norwegian consumers than Minnesota or North Dakota.

In the end, we will probably never know how Leeland distributed his own stereographs, nor will we know in what numbers he produced them. There are no diaries, no business records, and no letters home. Since he never married, no immediate family members can bear witness. At the last stage of his life, he experienced total disintegration of both health and finances. Since he was no longer able to take care of himself, the court appointed an executor to oversee his affairs, and upon his death in 1939, he was buried in Mitchell’s Graceland Cemetery’s potter’s field. No headstone marked Leeland’s final resting place. All vestiges of his life and work disappeared, that is, until now.

Although most of Leeland’s stereographs are dated 1904, their broad range of subjects is compelling and demonstrates Leeland’s singular curiosity and optimism for his adopted homeland. Topics include a series from Fargo, North Dakota depicting the Syttende Mai 17th of May 1904 Norwegian Independence Day festivities and dedication of the granite obelisk in honor of Norway’s celebrated poet and writer Bjørnstjerne Bjørnson on the campus grounds of what is today North Dakota State College. Leeland recorded distinguished visitors, eloquent speeches, the obelisk unveiling with its college cadet five-volley salute as well as a traditional Norwegian wedding ceremony between two local people performed in accordance with centuries-old customs, the

On May 17, 1904, thousands of visitors assembled in Fargo, North Dakota to celebrate Norwegian Independence Day and to attend the unveiling of the obelisk in honor of Norway’s great poet and patriot Boørnstjerne Bjørnson at the Agricultural College (today North Dakota State University). A popular attraction at the weekend festivities was Kari Rudi (1845-1916), one of Norway’s star langeleik players, who had traveled from her home in Valdres. The langeleik, or droned zither, is a Norwegian rectangular stringed folk instrument that dates from 1524. Hear one at www.youtube.com/watch?v=ed9j5O0YpuA

The 1904 Corn Palace was adorned with the best decorations to date, making it an agricultural showplace like no other. Native American motifs surrounded Grecian and geometric borders fashioned from corn, grains, native grasses and murdock, a common weed. The fantastic patterns of the superstructure with its domes and turrets were enhanced by a maze of textures and colors. From spire to foundation every portion was covered in a way to please the eye and catch the imagination. Unique in design and novel in materials, this corn palace shouted from the rooftops that Mitchell was an upwardly mobile and enterprising town destined to become the region’s trading and major railroad center and thus worthy to be capitol.

In addition, spectacular street amusements thrilled the visitor. The spiral walk was a unique rolling globe aerial act. The acrobat would balance on the globe to the top of the spiral and then slide down, an exciting and dangerous feat. The Ferris wheel, an invention that had delighted fair goers to the 1893 World’s Fair in Chicago, by 1900 was already...
grand finale of the joyful celebration. With elaborate Norwegian-themed window displays, even Fargo’s stores joined with the entire town to commemorate the event. These stereographs connect the Viking past with the viewer and may be the only extant series of images of the event; as such, they constitute a remarkable chronicle, one that has gone largely unrecognized in North Dakota’s cultural history.

Leeland visited the 1904 St. Louis Purchase Exposition and after his trip published a series of more than 50 stereographs—from scenes of Chicago (a stop along the way) and the various buildings, sights and entertainments, including the “Philippinos resting after dance,” the “Missouri exhibit in the Agricultural Building” and “the Ferris or observation wheel.”

Growing South Dakota towns were subjects of Leeland’s camera as well and include some of the earliest known views of Tripp; a series of the destruction by fire of five grain elevators in Mt. Vernon on April 27, 1904; and the laying of the cornerstone of the Catholic Church on May 10, 1904 in Parkston with Rt. Rev. Thos. O’Gorman, Bishop of Sioux Falls presiding. Leeland also recorded the Presho First Celebration on July 4, 1904 (or 1906), with its spectators and ball game, and he photographed railroad machinery grading land for the dam, west of Murdo, before its incorporation in 1908.

Capitalizing on the autumn Corn Palace week and its influx of thousands of visitors, Leeland published many views of Mitchell as well as both the interior and the exterior of the 1904 Corn Palace, its prime attraction. This building’s exterior facade, decorated in ornamental compositions of colored corn varieties, oats, rye, barley and grasses, is today America’s sole surviving example of this genre of folk architecture. (In 1905, the year after Leeland’s stereographs, the original wooden building was torn down and replaced with a grander version.) Since 1904 was the year that Mitchell made a bid for the state capital title, organizers went to great lengths to present exciting and impressive celebrity entertainment that Leeland documented, including the popular John Philip Sousa and his band and what may be the earli-

developed by the Eli Bridge Co. of Roodhouse, Illinois as a portable ride that could be moved from fair to fair. And the entertainment of John Philip Sousa’s Band only confirmed the prodigious accomplishments of Mitchell’s city fathers.

However, when the noted bandmaster arrived in Mitchell and from the train’s window surveyed the town with its muddy unpaved streets, the story goes that Sousa refused to leave the train until he was paid in full in advance. To the astonishment of all concerned, the demand was met. Mitchell’s bankers counted out cash, delivering it in heavy sacks. In the end, Sousa not only fulfilled his commitment but also added extra performances and encores.

Besides being an occasion for extraordinary entertainment, the Corn Palace was a place for the display of products of the fertile South Dakota soil and competition was keen for the honors and cash prizes offered the farmers of the state.

“All records were broken” ran the headline of Mitchell’s newspaper, the Daily Republican (October 3, 1904) “It is estimated that at least 40,000 were in the city during the week... At the close of the palace and during the earlier part of the evening, the streets were alive with young and older people who were engaged in the pastime of throwing confetti and having a good time in general.”

In postscript, all these activities, successful as they were, did not insure that Mitchell would win the competition. Pierre retained the seat of government by a vote of 58,617 to 41,155 and remains today the capital of South Dakota.
est known image of Will Fussner, aerial teeterboard and giant ball equilibrist, and his spellbinding acrobatic act on the spiral tower.

In addition, Leeland produced humorous vignettes in which subjects conspire with the photographer to act out humorous situations or make insightful comments on daily life. He produced his own comic version of "The French Cook," similar to the widely popular series produced by a number of companies, including Rau, Keystone, Graves, and Underwood.

The technical quality of these stereographs, however, demonstrates that Leeland was no perfectionist. He did not always properly line up the stereograph's photographs to produce good 3-D. Many prints are characterized by a dark, muddy tone. Captions on several reused cardboard mounts easily confuse the viewer. Additionally, many stereographs have neither caption nor identification.

Stereo photography was also expensive to produce, and a photographer had to sell a lot of views to make stereoscopy financially viable. The picture in the advertisement for the Leeland Art and Manufacturing Co. in R.L. Polk & Co.'s Mitchell City Directory 1904 demonstrates that Leeland presented stereographs in his studio's reception area. But since selling stereos was a competitive enterprise like any business, he may also have gone from hotel to general store to convince proprietors and owners to sell stock images.

Surely it must have been difficult to compete with large commercial companies' marketing of mass-produced stereos in sets on a wide range of topics and also in attractive colors. Besides, he had competition from other local photographers, such as F. Elton Hill and C.W. Johnson, who were producing stereographs about the same time. Johnson is known to have marketed 400 stereo views taken in and around Mitchell, including 24 views of the interior and exterior of the Corn Palace. But more importantly, by 1904, the date of the majority of Leeland's stereograph production, the heyday of the stereograph was quickly passing.

Photographers always dealt with uncertain markets. As photo historians Mary Bennett and Paul C. Juhl who tracked the rise and fall in stereograph popularity in Iowa concluded, "Only a handful of Iowa stereo photographers existed in the 1900s, and for the most part they may have been amateurs, since professionals seem to have ceased to produce stereographs."[10]

Likewise, as Leeland no doubt came to understand, the demand for stereographs waned to such an extent it was not worthwhile to spend the time and expense to produce them, and he stopped publishing them altogether. Leeland's rich visual commentary extends beyond simple documentary record as his stereographs, cultural documents reflecting Leeland's own persona, cultural background and power of observation, transform into unique artifacts, influenced by the society surrounding them and, in turn, influencing how we understand America's western history. As Martha Sandweiss wrote when she described the way to examine photographs: "They need to be understood as constructions of the human imagination, as the result of selective attention to a particular subject... Like a memoir or a letter, [it] may describe events, but it inevitably does so through the lens of the recorder's own experience, ambitions, and need to convey a particular point of view."[11]

Meanwhile, close on the heels of the stereograph was the souvenir postcard, charging onto the American scene in its ascent as number one collectible. Leeland would turn his attention to the real photo... (Continued on page 45)
Strike up the band, the boys in the band, the band played on, beat the band, band wagon, band stand, and of course Sgt. Pepper are among the popular references involving bands. Rare stereoviews that can bring to mind any and all of the above connections are to be found in Playing Favorites, The Musical Fabric of Small Towns by Mark S. Chalabala.

Already a music-related photography enthusiast, the author was introduced to stereographs of bands about 20 years ago by NSA members Dean and Carol Kamin. After amassing an impressive collection of such views, Mark realized he had enough for a book featuring 109 of the best to share with collectors and students of band history and instruments, as well as those interested in the stereoviews themselves.

Brass Bands were an important form of entertainment in the 19th century, even more so in small towns, which are emphasized in the book. Local or traveling stereographers seemed drawn to bands, in many towns the most interesting attraction to be seen, with band members and their supporters no doubt seen as possible customers for copies of the view. The collection includes all combinations of locations, costumes and instruments, from the stylish to the downright scruffy, and bands of all sizes from those filling entire streets to groups of as few as six players.

The range of images goes far beyond the static, “Sgt. Pepper” pose, and even beyond shots of bands marching and playing. One chapter is devoted to “The Comic Musician” with examples from genre series that include musicians and instruments in comic situations. (The chapter introduction observes that most of the horns in these views were being held in unplayable positions by undoubtedly non-musicians.) Another chapter features views of children in bands or with instruments, mostly in sentimental or comic views.

There are of course many views that include band stands of various design, but one of the most unusual was stereographed minus any band. In a view by A.P. Sherburne of Concord, NH, several children and a dog are posed on a simple platform built around a tall tree at the top of a hill by the Winslow House Hotel, Kearsarge Mountain, NH. Whether the design was for rustic novelty or to anchor the structure in high winds is unknown, but it must have presented the advertised band a unique, if cramped, experience. An even more mysterious view shows a woman playing a guitar in front of an easel which holds different size prints of the same photo of a band. A glass of water with paintbrushes in it on a table next to her suggests that she may be a retouching or coloring artist. If so, the untitled view by W.A. Bairstow of Parker’s Landing, PA would be one of the very few (if not only) stereos depicting one of these generally unsung workers. Or, she may have been a family member assisting in Bairstow’s studio.

Brief historical texts introduce each of the 11 chapters. Text on each left side page faces a single view on the right side page (with a detail enlargement beneath it). This provides the view photographer/publisher, location, original title and name of the band as well as a paragraph detailing whatever is known about the band, the town and the instruments in use. The one exception to this pattern is a detailed, 13 page history of “Brown’s Cornet Band” from Fisherville, NH in Chapter 4. Written by John Linehan in 1899, the essay traces a postwar reorganization of the town band in 1865 through its varied career and wide travels to its dissolution in 1878. Only one view of the band seems to have been available, as seen on page 123, probably from 1875.

All the views are reproduced at eight inches wide in color, and are easily viewed with a regular lorgnette viewer. Many of the views have been restored with digital contrast enhancement, some to the extent that highlights and paper texture are quite prominent. (The final page shows the same view before and after digital restoration.) The detail enlargements beneath the views are helpful, especially for signs identifying towns or businesses, band names on drums and vintage instrument features. The one shortcoming is that some of these are digital resizings from existing scans rather than from separate, higher resolution scans of the specific detail areas.

Playing Favorites provides a unique and delightful stereoscopic look at all sorts of brass bands and many band related subjects of the mid to late 19th century. It appears that several small town stereographers made an effort to do their best work in documenting these dedicated bands, and Mr. Chalabala is to be thanked for locating, identifying and presenting so many here.
Ernie Rairdin, SSA member #965, is an accomplished stereo photographer who for years has been taking 3-D portraits of Presidential candidates on the stump as they pass through his home state of Iowa. Ernie has produced so many colorful stereo views of the candidates he is putting together a book on the subject.

A recent stereoview card that Ernie sent round in the Avian Folio is a lovely portrait of former Republican Presidential Candidate Michele Bachmann, photographed on June 27, 2011 as she announced her candidacy at the Snowden House in Waterloo, Iowa.

Ernie Rairdin was born in 1938 and grew up in Iowa but spent a lot of summers with his father in Washington. His father operated a camera repair shop so Ernie was exposed to a variety of broken photographic equipment. “I remember dad taking stereo pictures in the early 50s with a Bolsey B2 on a slide bar using Kodachrome film,” says Ernie, “and I still have the slides.”

Ernie has been married to his wife Sherryl for over 40 years and they have three married children. Together, Sherryl and Ernie compiled the Stereo World Index which lists all articles and subjects published in the magazine from 1974 to 2007.

In 1996 Ernie retired from Rockwell/Collins as a process engineer in the automated circuit board assembly field. Ernie has been active in APEC (the Amateur Photographic Exchange Club) and PSA exhibitions.

“Participating in the SSA brought significant improvements to my views,” says Ernie, “thanks to encouraging comments by my fellow participants.” Ernie is currently the Supplies Secretary for the SSA and he can be reached via email at: ernie@rairdin.com.

Printable Transparency Envelope

Les Gehman, SSA Membership Secretary, recently uploaded a PDF file to the ‘Files’ area of the SSA online list. The PDF may be used to print out your own SSA Transparency Envelopes. You can enter your data into the form, then print, crop, and fold the form into a transparency envelope. This form requires 8.5”x14” legal size paper. Once you print the form, you’ll need to crop off the left and right sides using the crop lines printed on the form, and fold the form along the printed fold lines to create an envelope similar to the ones that Ernie has been providing.

Les also uploaded a PDF file which may be used to print your own stereocard envelopes on No. 10 envelopes. “I changed around some of the entries,” notes Les, “so I’d really like some feedback on the changes. For instance, since very few of us are still toning our prints, I merged the paper/toning/etc. entries into a more general ‘Processing/Printing/Computer Info’ entry. Did I provide enough room for this entry? How about the size of the ‘Other Notes’ entry?”

These files may be accessed at: http://tech.groups.yahoo.com/group/StereoscopicSocietyofAmerica/files/SSA.

A Closeup View of a 1905 Circus Wagon

Readers of Stereo World will recall the March/April 2011 article (Vol. 36,
No. 5) written and illustrated with color stereo views by Peter Jacobsohn and titled “Wagons of the Great Circus Parade.” Peter’s stunning stereoviews captured selected wagons from the 2009 Great Circus Parade that took place in Milwaukee, Wisconsin featuring over 50 antique circus wagons, 450 horses and 2000 costumed participants.

Peter had been sending stereoview cards of these images around in the Avian Folio after producing them. In response to a number of requests, Peter recently sent around a close-up view of a detail of one of the wagons featured in his article. The detail was from a 1905 bandwagon for the Carl Hagenbeck Wild Animal Show and was from a tableau on the wagon that had been known as the “Lion’s Bride Tableau.” That particular wagon was in service from 1905 through 1925.

“Nice detail and great color,” commented David Thompson on the stereoview card sleeve. “That lady is really under a strain holding that wagon top up.” “I love the saturated colors and the luminous nature of the subject,” wrote David Kuntz.

SSA Members Show Off Their Work

SSA members like nothing so much as sharing stereoviews along with information about the cameras they use to produce them. In the archives of the SSA are numerous historic views of SSA members sharing their work.

(Continued on page 27)
Multiple exposures of buildings under construction, taken on separate occasions with a perfectly re-aligned stereo camera, were digitally integrated to make four dimensional images showing the buildings simultaneously finished and in various states of construction. Depending on the post processing, visually the result can be anything from a translucent structure, simply a Clear Building, to a structure with newer (exterior) parts cut away to reveal older (interior) parts. One can show all the temporal eras equally in all parts of the image, or have different eras predominate in different parts of the image. Most of the images reviewed here are each comprised of four to six stereoviews acquired over the course of 15 to 24 months during the years 2007-2009, while the buildings were being constructed in Charlottesville, Virginia. The work required extreme precision both in image acquisition and in post-processing stereo alignment. My interest in architectural photography predates my interest in 3-D photography by decades. Only after I discovered stereo photography in 1997, did I start making my own architectural images. I immediately recognized the medium’s unique facility for capturing the physical essence of architectural constructions, space and volume, as well as the visual essences of rhythm, texture, transparency and semi-transparency (windows, glass, mirrors, screens).

Transparency or semi-transparency are rendered especially well in stereographs. In architecture, this includes not only glass and mirrors (of varying transparency), but also other screening structures: not least the structures visible while a building is under construction. Walls made of 2x4 studs, floors supported by fine steel triangulated trusses, steel columns and beams, masses of re-bar or wire mesh... all of them are uniquely stereo-visually interesting, and have attracted the attention of my camera since the beginning.

Inspiration

The Clear Buildings project is a creative synthesis of several others’ artistic techniques that touched me around the turn of the 21st century, which I then applied to the subject of architecture. First, in 1999, I worked with Lynn Butler on her surreal slide show Nocturnal Moments / Waking Dreams. This was a show of double exposures, but the double part came in the slide mounting: in preparing stereo slides for projection, where each half-pair image consisted of two film chips! This was a nightmare of stereo alignment work, but the struggle was rewarded with imagery showing some really interesting depth effects and image interactions. While this work did not motivate me to try double exposures at the time, it definitely planted a seed in my mind, that would germinate years later.

In 2005 at the NSA meeting in Texas, I saw Christopher Schneberger’s show The Strange Case of Dr. Addison and the Crosswell Twins. I had seen vintage ghost images before, but had never seen them so beautifully made, or used so effectively to tell a story. The images had a great impact on me, and later that year I finally started experimenting with ghost image exposures in my own creative work, making them in camera on slide film with a double exposure technique.

Not much later I discovered the work of Michael Wesely in a mainstream photography magazine. I read a short one-paragraph blurb about his MoMA project in New York City, and saw a small reproduction of one of the images.

Fig. 1. This building was photographed with a hyper stereo base of about 30 inches from a rooftop several hundred feet distant. (All stereo by the author)
Wesely had photographed the renovations (essentially: rebuilding) of New York’s Museum of Modern Art using very long duration exposures. With exposures of over two years duration, the resulting images were magical and mysterious, rendering architectural structures normally considered fixed and solid as translucent! The travels of the sun in the sky became a huge, broad white ribbon, punctuated by dark spots or lines caused by cloudy days or weeks. The MoMA itself appeared as a gray fog, within which one could discern but also see through structural elements like steel columns and beams or trusses. All of this was surrounded by the city of (nearly) normal solid appearance.

Immediately, I wanted to try something similar using stereoscopy. But first, I had to contact Wesely. Had he done any 3-D photography? His reply was brief: none of his images were stereoscopic. Now I was excited! I gave myself the green light for a new imaging project.

There was no technical information available on how to make the one- or two-year long exposures needed, and I hardly had the time to obtain the necessary experience. Given my prior experiences with multiple exposures, I recognized the possibility of creating similar images using such techniques in a digital process. The images I envisioned appealed to me on several levels: for their subject matter, for the powerful and appropriate stereoscopic visual effect, and lastly for the anticipated technical difficulty! Little did I know that my little experiment would result in a huge multi-year undertaking.

**Method**

My aim was to photograph buildings under construction multiple times, with the final image made by blending all these photographs together. Ideally, there would be an initial image showing the work site and foundation structures. There would be a number of intermediate exposures showing the building partially completed. Finally, there would be a picture of the finished building. The series of images would be post-processed digitally, blending the imagery to obtain a transparency similar to what Wesely had achieved. Because the post-processing work had to be done digitally, it made sense to use digital cameras. Soon enough I learned that using digital cameras was indispensable for numerous other reasons as well.

Though the idea was theoretically simple, I was under no illusions. From the beginning, I knew there were going to be serious problems (I just didn’t know how many!). Imagine doing a cha-cha, sequential stereo exposure, with a single camera, where you take the left image on one day, and then you go away and come back three weeks later to take the right image exposure. Repeat this a half-dozen times over an 18 month period, at the end of which you want all the images to be functional-

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**Fig. 2.** A hospital garage was my first test image, showing rapid assembly of pre-cast concrete parking deck levels.

**Fig. 3.** A steel structure on Eismann Street, closer to the theoretically ideal inside-out construction process yielding a Clear Building.
ly interchangeable with respect to stereo alignment!

How would you ensure proper camera positioning, and good image alignment in the camera? This illustrates just one of many challenges in the project, even though in fact, I was taking both left and right exposures simultaneously at any given time. I also guessed that, no matter how much care I took with image alignment during photography, there would remain a lot of work in fine tuning the stereo pairs, once I got into the post-processing task of digitally layering multiple images.

I expected that using digital cameras was indispensable for this challenge of setting up numerous times with adequate precision. I knew that I would have to monitor my construction sites, and when certain construction milestones were met, I would return with cameras to obtain another round of images. At such times, test exposures could be made and immediately reviewed. After comparison to earlier photographs brought along as prints, camera alignment could be proofed and adjusted with good precision.

To ensure that the image size and geometry remained constant throughout, I used the same prime lenses (never switching them L to R), always focused at infinity. While image size by itself is easily corrected in post, it is not so easily distinguished from the other distortions I would likely have to deal with. Minimizing such factors and variables was essential.

Accuracy in matching camera position is very important, as it affects parallax. Vertical parallax is generally undesirable, and horizontal parallax affects perceived depth. But because of the sensitivity of human 3-D vision, getting pixel accurate alignment in the virtual z-axis requires much better than pixel accurate alignment in the x-axis. In other words, being one pixel off in the x-axis, can put you dozens of (virtual) pixels off in the z-axis, which is unacceptable when trying to match the scale and alignment of numerous three dimensional images.

I set camera position in two steps. First, I would recreate the tripod setup using various marks that I’d previously left at the viewpoint site, and elevating the camera to a given height measured with a tape. I took extensive notes at each viewpoint, to be able to recreate the setup. Second, I made test exposures which I could review in the camera, and compare to print images from prior visits. Ideally, I could find some features in the image that were nearby, and compare them to distant features—basically noting parallax between such features. For example, I might note down that the left edge of a nearby steel column was perfectly horizontally aligned with a street lamp-post in the background, half a mile further away. I would note as many such visual alignments as I could find, both horizontal and vertical, and then try to recreate these when returning later to re-position the camera. All this was done iteratively with the task of matching camera pointing.

Accurately matching camera pointing was equally as important as camera position. The pointing affects lens distortions in the image (like keystone distortion), which produce non-linear scale variations across the entire image that are difficult to correct. By the pointing, geometrically I mean the virtual line which defines the optical axis of the camera, going forward into the scene. For the image geometry to be matched, that line needed always to go through the scene in exactly the same way. The pointing I fine-tuned by comparing image features at the edges of the frame and near viewfinder markings with prior imagery I’d brought along in a print.

Looking at the edges also helped me to maintain good rotational alignment, which was comparatively less critical, though it would affect vertical parallax, especially when shooting at the wider stereo bases. Compared to other misalignments, camera rotation was easier to correct, but distinguishing it from, say, keystone distortion, proved challenging.

**Image Acquisition**

I do a lot of bike riding around Charlottesville, Va, and in 2007 started taking note of empty lots and new construction sites. Fortunately, one of the first buildings I was able to photograph was of a type that would be built very quickly, allowing me to test my idea without having to wait a couple of years for results! The University of Virginia was building a new hospital parking garage, with another U.Va. parking garage very nearby that would serve as an elevated shooting platform. After obtaining permissions from the public relations office of the Hospital, and seeing that construction had begun, I began making exposures. I found a spot where I could rest my camera on a concrete wall overlooking the site from an elevation of some sixty feet. With some reference marks made on the concrete, I ensured that upon my repeated returns the camera would rest in the exact same spot for each exposure.

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**Fig. 4.** This image of an addition to the U.Va. School of Architecture was taken from atop a fire escape staircase on the nearby Sigma Phi fraternity. It was the last of three viewpoints worked for image acquisition. The other viewpoints were too close to the site, and were ultimately wiped out or blocked with construction paraphernalia.
Construction proceeded quickly on this building, as they were laying one pre-fab concrete floor per day on this particular segment of the garage, and I quickly had my proof of concept finished. Five intermediate images were easily acquired over the course of just one week.

The result was largely what I had hoped for, even though the transparency in this particular building looked strange, because sections of a garage like this are built from the bottom up. Because of this, the translucency increases with height—the bottom floors are nearly opaque, and the top floors are nearly invisible, wispy gestures. It was not quite the effect I wanted, but it was related to the manner in which construction progressed. I resolved to pursue images of steel truss constructions (as opposed to cast concrete) whenever possible.

Just a few blocks down the street, a high rise condo on Elsom St. was the first structural steel building I started photographing at about the same time, and this had the potential of looking truly translucent in the final image. This is because steel buildings are typically built from the inside out—sometimes the entire steel load-bearing structure is already put up, even before the floors are poured.

Built in this ideal progression—steel structure first, then floors, HVAC and other infrastructure, with walls going in last—the building can look naturally translucent in an evenly blended multiple exposure. The most solid features are the foundation and interior steelwork, followed by the floors, with all giving way to progressively more transparent structures like the exterior facade.

At the Elsom St. location, I encountered my first difficulties. I could find no location with a useful viewpoint and also a solid, stable reference structure against which to rest my camera. Another problem: I had no idea how big the completed building would be—how far away should I be, how high should I aim the camera? Had I enough time, I could have looked up the builder or owner and obtained the necessary information. But this was just an experiment! This was artmaking made in my spare time. Spare time being scarce, sometimes I just had to take a chance.

As my project began to encompass more sites, and as time and construction advanced, numerous additional challenges presented themselves in the task of selecting the exact location for image acquisition. Buildings are full of regular, repeating structures, which can produce visual “screening” interference effects depending on the viewpoint. For example, vertical columns close to the camera might visually interfere with vertical features deeper in the structure. This is apparent in some parts of the parking garage images. Without plans in hand, it was impossible to anticipate and choose a viewpoint to avoid these effects.

Any viewpoint chosen needed to be reliable and accessible for the entire duration of photography. If the viewpoint was lost for any reason, before the last image was acquired, there could be no clear building. I absolutely needed that final image showing the finished exterior of the building.
As I photographed more buildings, I realized that almost no viewpoint could be relied upon for the duration. So many things could go wrong! In subsequent months, I lost working viewpoints to all sorts of interference. Trucks or trailers would be parked in front of my viewpoint; my viewpoint reference would become unstable or shift (e.g. a concrete post in soil, or the ground dug away); my viewpoint might be blocked by other construction, or disappear altogether due to demolition! At one location, a building I had been shooting from for some months simply vanished, having been torn down at the commencement of another construction project.

I solved these problems simply with redundancy. I learned to select and then use multiple viewpoints for the photography of any one building—in the hope that at least one viewpoint would last for the duration of that building’s construction.

As described earlier, at each viewpoint, I took detailed notes and made (hopefully) permanent reference markings, with which I could reproduce the camera position accurately upon my return some weeks or even months later. On each visit I would take care to reinforce my markings on the ground, concrete, roof tiles, fence-posts, lamp-posts, fire hydrants, or whatever happened to be at that spot. I used wax crayons, Sharpie permanent markers, rocks for making scratches, and gaffer tape! I would mark the position of the feet of the tripod, and measure distances such as the height of the camera, or the distance of the camera from some other feature—always trying for measurements with which I could triangulate the camera back to the exact same position. My favorite reference points were lamp posts or fire hydrants. But even these were not stable!

It was an ongoing battle against the elements! On one or two occasions, after I had remained away from a spot for too long, and my markings seemed to have disappeared... I would spend several minutes on my hands and knees, literally with a magnifier, looking for traces that would confirm the location of a key reference mark! Thereafter, I returned to some viewpoints, just to reinforce the marks, even if on that occasion there was no need for further photography.

I experienced one snafu that was so unlikely, it was downright funny. For photographing a new building for the U.Va. School of Nursing, I had found what I thought was a bomb-proof viewpoint. Up on a third floor balcony of the neighboring U.Va. French House, I got a great view down onto the construction site, into the steelwork, and far down into the foundation structures. There was an alley below, but was sufficiently far above it that no truck would ever block my view. The alley was also too narrow for the bigger cranes to get in... so I set up my equipment with a great view and confident of a “safe” location.

I started with exposures of steel columns and trusses coming up, and a few weeks later I got a second set of exposures after floors were poured. The next time I showed up with my cameras, only six weeks into the shooting, I had to laugh at my prior confidence: the French House was getting a renovation, and a scaffolding had been put up all around the building. I went up to my balcony, and set up my rig, and found that, against the odds, a beam of scaffolding had been placed straight through the middle of my view.

I couldn’t shift my cameras, of course; I could either just quit this view, or keep going. I kept going, expecting the scaffolding to be gone before too long. But adding insult to injury, the scaffolding remained in place unused for nearly three months before renovations began, and then another three months before they were done! Only my very last exposures, taken almost a year later, were no longer blocked by scaffolding (I suppose I was thankful they had not removed my balcony altogether in the renovations!)

Beyond these troubles with camera placement, alignment, and site instability, there was the problem of losing image reference points as construction progressed. As described above, after initial re-positioning of the camera, I used cues from specific details in the image itself to fine tune the camera position, and—most importantly—match the camera angle, i.e. pointing the camera. Often the best reference points in the image were in the construction itself, but these points would ultimately vanish as the building progressed. On some of these buildings, re-aligning with image reference points became a game of deductive reasoning—for example, supposing that the edge of a window frame matched the position of a vertical column that used to be there...

**Image Post-processing**

From the outset, I knew that post-processing the images was going to be a big challenge, even with all the care and craft that went into image acquisition. The key difficulty was correctly identifying the origin of subtle distortions across the images, so that they could be eliminated efficiently. All the distortions are expressed as misalignments across just the two axes in the image, x and y. And yet the source of the distortion can be related to camera position errors (in three axes), camera rotation (around image axis), camera pointing (equivalent to camera rotation around other, arbitrary axes), image scale errors (affected by lens focal length and focus). Not only that, but something as simple sounding as a camera pointing error produces two different kinds of image distortion! You get a simple translation error (a uniform linear misalignment in x and/or y axes), plus a more subtle, non-linear perspective distortion.

Always using the same prime lens, and always focusing to infinity, removed at least one confounding variable: image scale should remain constant. But ambiguities remained. For example, if you see a vertical misalignment between points in images that were taken from the exact same location, this can be the result of either camera rotation (image rotation) or camera pointing (xy translation plus keystone distortion, along an unknown, arbitrary axis). To correct for image rotation, you can align certain features in the image (say the edge of a roofline), but that is only going to work if there is no keystone distortion. Conversely, to test for and correct keystone distortion, you look for vertical misalignments... a catch-22, because some of those could be the result of rotation!

I followed a specific procedure to separate the causes of these distortions, and make appropriate correc-
tions. First, I would align some feature near the center of the image by simply translating the images in the x and y axes. This would correct for the first component distortion caused by a camera pointing error. Then I would set a transformational origin at that aligned point. Rotational errors could now be seen along a vertical centerline as horizontal misalignments. After fixing those by rotating the image, keystone distortions might remain. These have a different character altogether, affecting the scale of the image in a non-linear fashion (e.g. the image might look reduced on the left side, and enlarged on the right side of the image). Keystone distortions can be removed reasonably well using a perspective distortion tool. If after these steps misalignments remained, then I would return to the first step and repeat the process. So I followed an iterative process, eliminating big rotations first, then any keystone distortions still evident, then back to rotation if necessary.

Another challenge was simply computing power. My newest computer at the time was vintage 2002, and barely able to open multiple layers of images, let alone process them in real time. This computing bottleneck forced development of an efficient workflow, which made fast work once I did upgrade my computer. Working on the parking garage images, I had decided to make a reference stereo pair first, and then layer the subsequent images on top of that pair, with each layer being another stereo pair. This seemed necessary, to judge alignment in the z-axis as well as the x and y axes, each time I added another layer and made adjustments to it.

This seemed reasonable until I rapidly ran into processor limits. The problem was that the processor became so overworked, every time I made a minor tweak to a layer (say, a rotation), it would take upwards of twenty seconds for the screen to update the view! And the more complex calculations, such as a perspective transformation correcting for keystone distortions, took even more time. So I decided to do the stereo alignment first on just one reference stereo pair, and then split this reference stereo image into two half-pairs. Subsequently, I would work on just one half-pair at a time, adding and aligning the various layers (each an exposures taken on a different date). The computer could handle that better, and my work became faster. Still,
the final images would consist of an unwieldy stack of four or five layers, each painstakingly aligned and tweaked to match the reference layer below. After I was satisfied with layer alignments within the half-pairs, they could then be re-combined to make a final stereo pair, or instead processed into an anaglyph.

The first two images that I processed this way in 2007—the garage and the Elsom St. condos—took more than eight hours work each. I satisfied myself that the concept would work well, and setting aside the post-processing for a while, I continued photographing ever more buildings that I was discovering under construction around town. (In 2009, I got a much faster computer, and the post-processing work continued at that time).

One building about which I had some advance notice was Ruffin Hall, the new fine arts studio building at U.Va. I was able to arrange for some potentially very interesting viewpoints—very close up! Ruffin Hall was the only building where I got to see plans and also a 3-D model / mockup so I could better plan my viewpoints. This allowed me to choose some viewpoints for maximum stereo effect. I photographed from a nearby roof, as well as from ground level.

Even as the image acquisition work was progressing, I could see there would be trouble with finding common reference points in the progression of images, because I was so close to the ever-changing subject. Doing the camera alignments was becoming increasingly difficult due to the loss of commonality in the image content from one set of exposures to the next. This turned out to be a serious problem for post-processing as well. I might be able to align a “late” layer to the image acquired just previously, but not to the first image acquired. This reduced accuracy and increased frustration!

In a Ruffin Hall view from across the street, the final exposure had only two small elements in common with earlier exposures. This was fortunate, because two reference points was the absolute minimum required for setting the cameras, and then later for adjusting alignment in the image files.

An entirely unanticipated problem was discovered in the instability of the steel structure during construction. I first noticed this both at Ruffin Hall and at the Nursing School building, while struggling to reposition cameras accurately: some of my visual cues could not be lined up in the same way I’d done previously. Confirmation came later in the post-processing: as weight was added to the structure in the progress of construction, of course steel beams and columns would shift and bend in response. This wreaked havoc on the image alignment work, as the steel structure contained typically the best visual alignment reference points. But as these reference points moved around—sometimes on the order of...
several inches in-situ, they became unusable for the alignment work.

Closely related to this difficulty was an instance in which some steel beams were moved by the builders, after they had already been bolted and welded in place. Apparently, in the Nursing School building, in-between two of my visits, an error was discovered in the construction, and so a beam defining the roof-line was simply moved over by a foot or two. I hadn’t noticed this while photographing, but discovered it in post-processing, because this subtle change kept interfering with my efforts to find good alignment in all parts of the image.

In retrospect, I learned to take nothing for granted in surveying my scenes for suitable shooting locations, and my images for suitable visual alignment points. The more redundancy I had, the better to cover difficulties down the road. Certainly, if I were to embark on another Clear Building project, I would want to avoid all the of the alignment difficulties right from the beginning, by installing a camera (or a fixed bracket for a camera) semi-permanently on site. To have the camera fixed in position, without need for re-positioning, would remove at least 50% of the work that is involved in making these images.

Summary

In a very long exposure, only features that were in view for the entire duration of the exposure appear solid. Any features only temporarily visible must therefore appear more or less transparent. Such images can reveal a sequence of construction with internal details. Especially in the case of steel truss construction, the result is a translucent structure, revealing simultaneously the finished facade and interior structures: fireproof stairwells, column and beam steel trusses, flooring, internal walls, HVAC elements, even the rebar inside of poured concrete. This quality intrigued me in Wesely’s photographs, and can also be seen in my “plain” Clear Buildings, where I give an even, equal distribution to all the layers (intermediate exposures) in any given final image.

However, my stereoscopic technique has added the quality of dimensionality, which is uniquely suited to this kind of image showing highly complex structure and semi-transparency. The digital multiple exposure process, through infinitely variable control of transparency in the layers, including the facility of applying a gradient, or arbitrarily uneven transparency to any layer, provides significantly more options in the design of the image. Indeed, the source files can be blended in numerous different ways—to highlight or suppress different parts of the physical structure, or to reveal different time periods in the construction in different parts of the image. Each series of images on a building can be combined and recombined to produce not just one, but several distinctly different artistic statements, providing insight that would be otherwise unavailable.

The Society

(Continued from page 19)

A nice example from the early 1940s is shown here with a black and white, hand-processed, stereoview card by J. Wilding. Mr. Wilding is sitting at a card table with CPO Goodnight as they pass a Holmes stereoscope back and forth to examine an array of stereoview cards spread out on the table before them. The pleasure of sharing stereoviews in the classic Holmes ‘scope’ remains undiminished after 150 years of use.

I have prepared large format anaglyph prints of my clear buildings, and look forward to finding a good venue for showing them. I have also reproduced the images as medium format stereo slides and as traditional Holmes format stereoviews.

I seek an institution that would support a continuation of this work. I would like to utilize more modern, higher resolution digital cameras with some improvements in technique. Larger, more detailed images would result. While of some interest to collectors of modern stereoscopy, I think these images could be especially useful for education or public relations and outreach, or as documentary images... for architects, builders, and or schools.

How to Contact the SSA General Secretary

Ray Zone is the General Secretary of the Stereoscopic Society and in that position is responsible for production of this column in Stereo World magazine and, according to the Membership Rules of the Society, is also “responsible for trying to keep the Society functioning effectively and harmoniously.” Folio secretaries and any member of the NSA interested in the SSA are encouraged to contact Ray via email at: r3dzone@earthlink.net.

How to Join the SSA

To join the SSA one must first, of course, be a member of the NSA. For placement in a stereocard, transparency or digital folio of their choice the new SSA member must notify Treasurer Les Gehman at the following address: Les Gehman, 3736 Rochdale Dr., Fort Collins, CO 80525 (970) 282-9899. Les can be reached via email at: lew@gehman.org.
Image is Everything, Practice Safe Art

Gary Benna is a ceramic sculptor who has self-published an attractive anaglyph book showcasing his work in a manner quite suitable for it. As sculpture, of course, the work is created volumetrically from clay and in the third dimension of life. Benna retained Robin Stancliff Photography and Steven Meckler to produce color photographs of his work. He then converted these flat photos to anaglyphic 3-D. So, interestingly, the spatial workflow for the images goes from 3-D to 2-D and back to 3-D for final presentation on the page.

In addition to producing highly detailed narrative ceramic sculptures, often on a mythological theme, Benna has done a solid job of converting the 2-D photos of his work to anaglyphic 3-D that is easy to view yet fully conveys the detail and volumetric nature of his work. A good example is the sculpture titled “A Loaded Gun Disguised as Wisdom,” a 24 inch high work in porcelain with underglaze pencil and glaze, that conjoins the human figure with a gun. It’s a didactic work that retains inherent appeal as art, apart from the message. “With so many handgun fatalities the result of accidental discharges involving children, are they really safer?” asks Benna in the caption to the image.

Each of the nearly 70 images in the book is accompanied with a brief caption providing insight into the meaning and making of the art displayed. “Romance Under Siege, Various Angles of Attack,” a five foot high work, is one of a series of sculptures Benna produced with a cubist motif. “This cubist piece,” says Benna, “depicts how people use various strategies in relationships.”

Anaglyph is an ideal means for conveying the volumetric nature of sculpture on a printed page or on the internet. With the stereoscopic consultation of his daughter Shannon, Benna has made a deft use of the format to more fully convey the nature and meaning of his complex sculptures. Anaglyph glasses are included with the book, and there is more about the artist at www.bennarts.com.
route... the result is a book that hopefully comes across as a story and conversation between you and me... a conversation in provoking thought and seeding ideas as we delve into this fascinating new medium of visual communication." It is, of course, the digital aspect of stereography that is new and not the medium itself.

Though we’re still figuring out what “thinking in 3D” really means in terms of artistic practice, Dsouza is asking many of the right questions about this essential issue. Section subheads, for example, in the first chapter in the book on “Psychological Impact of a 3D Scene,” pose the queries and provide brief speculations on the subject. “Can 3D movies influence the Psyche” is one and “Do we even dream in 3D?” is another. A number of full color images and anaglyphs are studded throughout the text.

A second section of the book deals with Stereoscopic 3-D Production and provides some sound advice about the role of the Stereographer and preparation for the use of the z-axis in 3-D movies. Amusingly, Dsouza admonishes the reader, or potential 3-D filmmaker, to “Beware: the Nouveau Stereographer,” whose “dead give-away is the Catch-all phrase: ‘3D is not about in-your-face gimmicks, it's about subtle depth.’” In response Dsouza writes that “True stereographers meanwhile know what makes for bad stereography and also know for instance, that out-of-screen real estate is as valuable to immersive 3D storytelling.”

The target audience for this book is the growing community of 3-D filmmakers, whether amateur or professional. Its many salient points about the aesthetics of 3-D movies should be most readily embraced by aspiring and beginning professionals in the motion picture world. For more information, see www.realvision.ae/blog.

A panel from Leo Ortolani’s parody of James Cameron’s Avatar, the two volume comic book Avarat. The text boxes here discuss carnivorous flowers capable of biting the head off an elephant.

Avarat and Avarat 2
Inveterate 3-D comic book collector Lawrence Kaufman brought these two Italian “Fumettos in 3D,” first published in November and December 2010, to my attention recently. They are the work of Leo Ortolani, whose cartoon character “Rat-Man” is popular in Italy. Rat-Man is the protagonist of this two volume parody of James Cameron’s 3-D film Avatar. And, as you would expect, most of the action in these two landscape-formatted volumes takes place on the planet of Pandora with a host of flora and fauna from that location filling its pages.

The loopy cartoon art is of the “big foot” school with the emphasis on humor. With full color 3-D covers and the interior pages in two color anaglyph, using PMS match colors, the 3-D is competently done with most pages having, at most, 5 levels of planar depth. An occasional stereoscopic grace note is apparent with volumetric elements achieving roundness or “skewing back” continuously on the z-axis. Unique 4-color custom anaglyph glasses made as a single piece of flexible polyester acetate are included with each book.

In the back of the second volume is a brief history of 3-D comics discussing the St. John Comics of 1953 with titles such as Three Dimension Comics and Captain 3D from Joe Simon and Jack Kirby. Nice color photos of the staff working on and viewing the page proofs wearing anaglyph glasses are also included in this section. A color depth guide for one of the pages, showing assigned levels of depth, illustrates strategies and methodology for the stereography.

These two Italian 3-D comic books may be acquired with assiduous searches on ebay or Amazon.com. Expect to pay a little more than the original cover price of six Euros, however. Nevertheless, diehard fans of both 3-D comic books as well as Avatar, might be up for the effort. See www.paninicomics.
Experience
3D-Con
in Costa Mesa!

The 2012 NSA Convention, now dubbed “3D-Con,” will be held in Costa Mesa, CA, from July 25 through 30. With its numerous activities, including a trade fair, stereo theatre, banquets and outings, plus a wonderful venue in the heart of sunny, Southern California, 3D-Con will have something of interest for everyone. Here are just some of the things being planned for this year:

Trade Fair
Our annual trade fair has constantly evolved since its start in Canton, Ohio, to become the largest and best place to buy, sell and trade 3-D items on the planet. Dealers come from across the globe to showcase their items. Not only does one find an overwhelming amount of vintage stereo views, View-Master and all the formats of days past, but also the latest in 3-D digital technology and photographic accessories. 3-D books, phantograms, lenticulars and computerized 3-D are all well represented. Because of its location in a large, populous, metropolitan area, this year’s trade fair has the potential to attract even more people than we’ve seen in the past. The convention organizing committee is working hard to capitalize on this by advertising the event in magazines, and promoting at other local conventions, such as Comic Con. Dealers shouldn’t miss this rare opportunity to showcase their wares in front of an exceptionally large audience.

Stereo Theater and the Return of the “Dive-in Theater”
3D-Con’s Stereo Theater brings you 5 days of incredible 3D hi-def videos and slide shows, designed to entertain, inform, awe, and inspire. The Stereo Theater will feature high-resolution state-of-the-art digital projection. There is an eclectic mix of...
first-rate programs featuring stills, still animations, and a host of superb high-definition videos encompassing an immense range of subjects and techniques. Images from one show can be seen in this issue, in Boris Starosta's cover article “Clear Buildings Compress Time in Depth.” The Stereo Theater version will add animation to more of these complex stereos, revealing even more time-shifting details of large building construction projects. Special presentations will include a screening of “Brian May's History of 3D” and the return of the poolside “Dive-in Theater” featuring a fashion show of 3-D glasses before the movie. Additional screenings and presenters are being added, and the complete program of content to be shown will be announced in July.

There will be six Stereo Theater award categories:

- Paul Wing Award for best work in the show
- Best Stereo Cinematography (live motion-video source material)
- Best Stereo Photography (still photographic source material)
- Best 3D Computer Generated Imagery and/or Special Effects (judges selection)
- Best Use of Historical Material
- Best Screenplay/Story/Narration

**Spotlight Auction**

A perennial convention highlight on Friday evenings is the Spotlight Auction of Fine Photopgraphica. Since the 1970s, this NSA convention staple has provided a way for dealers and collectors alike to sell or acquire rare, desirable and unusual stereo items. Including both vintage and modern 3-D images and equipment, this year's auction will once again include a minimum of two hundred interesting and quality lots. An anticipated feature of this year's sale is that the catalog will include items used for an upcoming book on vintage views from an old-time collection, presented just as they will appear in the book.

**Banquets**

We have three banquets scheduled, all of which will be held at The Orchid Restaurant, located just across the street from the Hilton Hotel. The NSA Banquet is one of the biggest social events of the convention. This year, we'll have a Persian style buffet. The NSA Banquet program includes an awards ceremony, plus guest speaker Lenny Lipton, author of *Foundations of the Stereoscopic Cinema*, founder of Stereographics Corp., and the former Chief Technical Officer of RealD (the main company that has made current digital 3D movie technology possible).

The Stereoscopic Society of America Dinner is open to everyone,
so even if you are not an SSA member, this is a wonderful chance to meet members of this group, and enjoy a social evening and delicious dinner with friends. The SSA dinner will start with a show from an exotic belly dancer; the meal itself is an Italian style buffet dinner. A full bar with beer and alcoholic and soft drinks is available, but not included.

The NSA President’s Breakfast is a casual, enjoyable opportunity to have a very special Sunday breakfast, and to hear more about what is going on with the NSA directly from the top. No guarantees, but there is often a roast of some unsuspecting but worthy NSA member.

**Excursions**

Our four excursions this year take in the best of local sights and culture, and also provide a rare opportunity to see the inner workings of the Hollywood “dream factory,” in 3-D, of course.

Excursion #1 is an afternoon cruise on a beautiful replica of a 1700s ship. The ship departs from Dana Point Harbor, and the cruise highlights points of local historical significance, marine wildlife, and local folklore.

Excursion #2 is a tour of the ocean liner Queen Mary and a visit to the Aquarium of the Pacific, in Long Beach. The Queen Mary is full of history, and features elegant Art Deco interiors and fixtures, making it an excellent subject for photography. The tour includes a museum with restored staterooms and replicas of shipboard life during the war, plus a huge engine room. The Aquarium of the Pacific contains exhibits of more than 19 major ocean habitats ranging from Arctic to tropical. The 350,000 gallon Tropical Reef Habitat alone contains more than 1000 tropical fish. The aquarium also contains a Lorikeet aviary and a shore bird sanctuary exhibit.

Excursion #3 is to Mission San Juan Capistrano and the Orange County Great Park. Located in the old town of San Juan Capistrano, Mission San Juan Capistrano was established in 1776 by Father Junipero Serra. It’s a beautiful and unique setting, so make sure your camera batteries are fully charged! The Orange County Great Park is located on a former marine base in the city of Irvine, and is the geographic center of Orange County. Currently the park is a hub for community events, an art gallery, a museum, and family entertainment. The major attraction of the Great Park is the giant Orange Balloon. It is the largest tethered helium (not hot air) balloon of its kind in the United States. Riders stand in a large, enclosed, circular gondola, and can appreciate a panoramic view of Orange County as it ascends to an altitude of 400 feet.

Excursion #4 includes a tour of downtown Los Angeles architecture, plus a visit to DreamWorks Animation Studio in Glendale, CA. The guided walking tour of downtown Los Angeles starts at the historic Bradbury building (used as a set in many movies and television productions), and includes the ultra modern Disney Concert Hall. This is Frank O. Gehry’s iconic stainless steel exterior, and the current home of the LA Philharmonic. Excursion attendees will also have the opportunity to ride on the restored Angels Flight, a funicular dating back to 1901. We’ll also visit the stunning, contemporary Cathedral of Our Lady of Angels, the largest house of worship in the LA Archdiocese. The excursion will then culminate at the DreamWorks Animation Studio, in Glendale. We will tour the facility responsible for producing some of the best animated 3-D features in recent years, including the Shrek movies, Kung Fu Panda and How to Train Your Dragon.

**The 3D Den (“StereODeon”)**

Easily recognized by its entrance, a “StereODeon” doorway styled in a manner suggesting the early 20th century Nickel-O-Deon “traveling light” entrances, the 3D Den is a place where visitors can enjoy 3-D Stereo as it was in the years before digital photography. The main room of the den features exhibits of vintage film equipment, viewers, and posters. Vintage magazine stereo viewers, which display multiple stereo slide views by sliding a handle, turning a knob, or pressing a button, are available for visitors to sample beautiful film transparencies, in sharp, bright, ghost-free stereo.

Many subjects are available, such as award-winning slides from the archives of the LA 3D Club, Bavaria and its Castles of Ludwig II, and for Worlds Fair fans, the Vancouver Expo of 1986. In a second room of the den, visitors can watch periodic showings of classic View Master reels, displayed by a special View Master Stereo Projector. And for those who simply want to relax and enjoy a show, “Stereography—A Fresher Portrayal” and vintage 3-D Movies are planned for showings in a third room of the Den.

**Workshops**

At this years workshops you’ll learn how to harness the latest technology to produce still images, shows and movies. We’re still soliciting presenters for workshops, so if you’d like to get involved, contact Philip Steinman at Workshops@StereoWorld.org, or by phone at (818) 530-1500.

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All Aboard for the

**NSA 2012 Convention**

July 25-30 in Costa Mesa, California

Six action packed days! Cutting-edge stereo theatre, workshops, art gallery, image competitions, room hopping, auction, trade fair, technical exhibits, excursions. Come and pick some oranges. Info and registration at http://www.stereoworld.org/2012
Stereo World readers who are interested in the development of stereography in the period between the two world wars are no doubt familiar with the book sets produced by the German company Raumbild-Verlag of Munich in the late 1930s and early 1940s, a series of volumes typically issued with 100 small views on heavy photo paper, pocketed, together with a folding metal viewer, in cut-outs within the thick cardboard covers of the book itself. The volumes often richly documented the rise of Hitler’s Third Reich and sometimes relied on the assistance of the Führer’s own official “court photographer,” Heinrich Hoffmann.

Such readers will no doubt welcome the reappearance in print after many years of Hoffmann’s own autobiography, Hitler Was My Friend: The Memoirs of Hitler’s Photographer, originally published in 1955, two years before Hoffmann’s death, and now reissued (2011), with a new introduction by historian Roger Moorhouse, by Frontline Books. The South Yorkshire based publisher has previously reissued the memoirs of both Hitler’s chauffeur and his valet and the current volume is therefore part of an ongoing series of first-hand retrospectives of the Nazi dictator.

The photographer himself has a special place in the Nazi hierarchy, for it was he who introduced the Führer to Eva Braun, subsequently Hitler’s long-time mistress and (at the end) wife, who was then but a lowly shop-girl in Hoffmann’s employ. But the photographer’s role was certainly far more than that. Hitler was, if not exactly camera-shy, at least highly publicity conscious, and Hoffmann was the only cameraman he permitted to photograph him on an ongoing basis. As a result, Hoffmann’s images appeared virtually everywhere and were even the basis of Hitler’s likeness on German postage stamps.

For a member of Hitler’s inner circle, Heinrich Hoffmann was not your typical Nazi. Lt. Col. R. H. Stevens, the British intelligence officer who worked closely with the photographer in translating the book from the original German, had been captured (and interrogated by the Gestapo) early in the war, and spent five years in the Sachsenhausen and Dachau concentration camps, hardly an experience to instill positive feelings, yet he found Hoffmann warm and engaging, and ultimately came to regard him as a friend.

In part this may have been due to the fact that Hoffmann’s career antedated Hitler’s by a considerable margin. Then too, it is surprising to learn that, for a man who was, or at least claimed to be, largely apolitical, Hoffmann’s membership in the fledgling Nazi Party actually preceded Hitler’s—or so, once again, he claimed.

Hoffmann began his photographic career, in the waning years of the Victorian age, as a prop boy in the shop of his father and uncle in Regensburg, they being official photographers to the royal families of Bavaria, Hesse, and Savoy. A series of brief apprenticeships in different aspects of turn-of-the-century photography followed and I found his brief glimpses of these establishments, account of the evolution of portrait photography at the time, and encounters with such personalities as operatic great Enrico Caruso and Siamese King Chulalongkorn (the child Crown Prince in the iconic musical The King and I) especially intriguing. There is no question that Hoffmann was a superb raconteur, with an eye for the telling phrase, but one suspects that some of his stories, like those of his first meetings with the Kaiser, may enjoy the embellishment of hindsight. Nevertheless, a delicious couple of dozen pages, and the first chapter is, from a...
photographic standpoint, in some ways the best in the book.

After brief stints in Switzerland, Paris, and late Edwardian England, Hoffmann returned to Munich, where he set up his own shop in 1910. Having established himself as a photo-journalist and portraitist, service as a photo-analyst in World War I led to the chaos of the immediate post-war years, including one remarkable incident.

It was Hoffmann who in fact photographed a jubilant crowd in Munich celebrating the declaration of war in August of 1914. Among that crowd was a young Austrian, a would-be artist and soon-to-be German Army Corporal. Years later, after considerable search, the youthful Adolf Hitler was finally picked out (or perhaps doctored in) from among the hordes in attendance!

There is an unreal, almost comic-opera quality to Hoffmann’s early attempts to obtain a photograph of Hitler. But, perhaps because of their shared interest in art, the pair soon hit it off and the long, unique friendship begins. Hoffmann will take no part in the ill-fated Munich putsch of 1923, but will be in the car that retrieves Hitler upon his release from Landsburg prison the following year, and the pair will quickly fake pictures of that release (the German government having strictly forbade any photographs outside the prison itself).

Adolf Hitler was, perhaps surprisingly, by far the most widely photographed of all World War II leaders, a status that is almost entirely due to Hoffmann. He would later claim that, counting those of the Führer, he had taken more than two million photographs in all during his long career.

Hoffmann was primarily a press photographer and his images of the dictator appeared in newspapers and magazines throughout the world, although many were also sold individually for home consumption. Then too, he produced a number of large format photo volumes (what we might call coffee table books) on his idol, works such as 1935’s Hitler wie ihn kien er kennt (Hitler as Nobody Knows Him), which proved immensely popular.

The photographer was often at the Führer’s side at moments of great national importance, as when he was asked to go along on a car ride to southern Germany in March of 1938, so that Hitler could see again (from across the river) the tiny Austrian town of his birth. When they arrived, something major was clearly going on, and they continued across the bridge amid cheering, swastika-waving crowds. German troops had entered Austria but hours before.

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The Hitler that emerges in these pages is neither the Nazi demigod of contemporary propaganda nor the consummate monster he later proved to be, but rather the man beneath the image, a human being with flaws and foibles, an abstemious vegetarian who would touch neither alcohol nor tobacco, yet was prone to bouts of depression and whose mind unraveled at the end.

Halfway through the book, as indeed halfway through the Reich’s twelve-year tenure, the war begins, and once again, Hoffmann is in the thick of it, offering his own insights into the German-Soviet Non-Aggression Pact that made war possible, the Polish campaign, and Hitler’s last-minute decision to halt the invasion of Britain in the summer of 1940. Perhaps most poignant of all is Hitler’s reaction of shocked disbelief when Britain (the one country he constantly underestimates) actually goes through with its threatened declaration of war upon the invasion of Poland in September 1939. The military genius does have feet of clay after all.

Much of the latter part of the book is devoted to Hitler’s views on religion and superstition, his relation-
ships with women, and lastly, his involvement with the arts. As to the former, the Jews are never mentioned, and the topic is confined to the party's turbulent relations with the Catholic Church, which Hoffmann largely attributes to the machinations of Martin Bormann, while Hitler emerges as well-meaning but largely indifferent. Then too, the dictator is clearly superstitious, probably triskaidekaphobic, much interested in the prophecies of Nostradamus, and certain that he has a sixth sense that warns him of impending danger (to be fair, Hoffmann presents a considerable amount of evidence to back the latter claim!). As to his interest in the occult (which is of course the basis of the Indiana Jones stories), Hoffmann says little.

In regard to women, Hoffmann reveals the reasons behind Hitler's desire to remain a bachelor despite his attractiveness to the fair sex, who apparently find the tiny moustache alluring (the photographer on the other hand thinks it ugly but is not about to say so—the bonds of friendship going only so far!). He then details the Führer's highly obsessive, overprotective relationship with his beautiful and outgoing niece, Geli Raubel, and the devastating impact of her subsequent suicide. The evolution of Hitler's complex, yet somehow pedestrian relationship with Eva Braun is also discussed, as is that with the English fascist, Unity Mitford.

Finally, there are glimpses of Hitler, the struggling young watercolorist in pre-WWI Vienna and the later passionate art collector, including an amusing set-to with Göring over a much-desired painting, as well as the disreputable business of art confiscations by the Nazi state and Goebbels' campaign against "degenerate" art.

But then the war goes badly, and the final chapters are devoted to what Hitler's favorite composer would term the Gotterdammerung, the downfall of the gods, as well as Hoffmann's own personal travails in the aftermath. (He himself would spend several years detained first by the Americans, who treated him well, and subsequently by the Bavarian government, which didn't.)

As things fall apart, the atmosphere in Führer Headquarters becomes more and more surreal. But of this, Hoffmann is largely unaware, for he has been excluded from the Chancellery for most of the last six months by an intrigue of Bormann's.

While Hoffmann's account is no doubt both selective and self-serving in places, it is also a fast-paced and rattling good read and often retains the ability to surprise. He makes no apology for, and in fact hardly seems to notice, the many brutalities of the Nazi regime—but hey, he's non-political, remember. Like the Egyptian swimmer, it seems he's in denial! Neither the Kristallnacht nor the Holocaust are mentioned at all and the Jews but rarely—and that just to decry the excesses of Nazi book-burning, which he blames on Goebbels (whom he clearly does not like), noting that even a dictionary was consigned to the flames, simply because it was "compiled by Jews," an action he finds overly zealous.

So pervasive is this "sanitization" of the Reich that when Hoffmann's daughter, at a social gathering at Berchtesgaden, even hints at the evils lurking below the surface, it comes as a blow of near physical intensity, and she is banned from Hitler's presence forthwith. Then there is the young girl living near Berchtesgaden whom the Führer befriended—until some busybody on the staff discovers she is not of pure Aryan ancestry and she is forbidden to see him again. It wouldn't look good if anyone found out!

The photographer leaves us impressions of other leaders as well, both German, such as Bormann and Foreign Minister Ribbentrop, both of whom he also finds distasteful, and foreign, like England's Lloyd George and Russia's Stalin, who come off more favorably. Göring fares rather better too, although he incurs the Führer's wrath on more than one occasion. And there are others, notably Mussolini, of whom one might expect more extended descriptions, who make little appearance in these pages at all.

Hoffmann clearly has the loyalty of one of Hitler's famous Alsatian shepherds. For him, the dictator and his party can do no wrong, even when his own wife is placed under "house arrest" for expressing too controversial opinions in public; he's clearly irked by her behavior and bluntly tells her she's lucky she didn't wind up in a concentration camp. All of which may be a bit much for some.

Nevertheless, despite the sordid nature of his subject and selectivity of his recall, Heinrich Hoffmann remains one of the premiere and historically most important stereographers of the 20th century—and a great storyteller to boot. Clearly, his memoirs are well worth checking out, at least for those readers with strong stomachs who also have a serious interest in the history of the World War II era.

There are a couple of minor technical glitches in the present edition, most notably a pair of photographs, the first an autographed print showing Hitler with a number of early Nazi leaders, the second supposedly portraying an early street clash with the Communists, yet both show the same image (the former) while the view of the street battle has mysteriously vanished. Yet these are minor issues in what is overall, from the historical perspective at least, a welcome addition to the internal portrayal of the Third Reich and its leadership.

Far more serious, from the standpoint of stereo aficionados, is the complete absence of any stereo illustrations or any single images that I at least could determine were taken from stereo halves! This is not unexpected. What is somewhat more disappointing, however, given the plethora of information on Hoffmann's long photographic career, is the complete failure to mention Raumbild-Verlag or even stereo photography in general anywhere in the 250 page text. Clearly, while the company employed Hoffmann's images, there was little direct relationship between the photographer and Schonstein's company.

For more on the Raumbild series in general, see Dieter Lorenz's "Raumbild-Verlag: Otto Schonstein on the History of Stereography" in Stereo World Vol. 12 No. 5. Hoffmann's own contribution to the volume entitled Grossdeutschlands Wiedergeburt (The Rebirth of Greater Germany), which focuses on the 1938 takeover of Austria, is examined in my own piece, "Anschluss!," in SW Vol. 15 No. 2. ☝️
Almost 2,000 feet above the Tennessee River, a distinctive rock promontory juts out of Lookout Mountain known as Point Lookout. The precipice looks down on the winding river as it passes Chattanooga, providing one of the most spectacular vistas anywhere in the United States. It was here in late 1863 that Robert “Royan” M. Linn established a photo studio and began taking photographs by the hundreds of Union officers and soldiers posing on Point Lookout.

Linn gained access to the site shortly after Union forces took the mountain on November 24, 1863 in what became known as the “Battle Above the Clouds.” Union forces under Maj. Gen. Joseph Hooker assaulted the mountain and defeated the outnumbered Confederate defenders commanded by Maj. Gen. Carter L. Stevenson.

It was a small engagement, but the Union forces drove the Confederate left flank, allowing Hooker’s men to assist in the famous assault on Missionary Ridge the following day, which routed the Confederate Army of Tennessee commanded by Gen. Braxton Bragg and opened the gateway to the Deep South.

Soon after Union forces captured the famous mountain, Linn, an enterprising Ohio photographer, arrived and found himself with two breathtaking new places to ply his trade—Point Lookout and nearby Umbrella Rock. Linn nailed together a studio just behind Point Lookout and named it “Gallery Point Lookout.” With his brother, J. Birney Linn, he began taking photographs in December 1863. The Lins almost immediately found themselves the proprietors of a tremendously lucrative business, photographing officers, soldiers and civilians posing at the point.

Today, we have an intimate look at one of the most fascinating photographic operations of the Civil War because of a small group of stereo views that Linn took to document his presence there, and from the diary of Union surgeon James Theodore Reeve, who was stationed near the Point and wrote about the photography in several of his entries.

As Reeve documented, the scenic rock outcropping was a dangerous precipice, and death would pay a visit in 1864, along with an accidental near-poisoning. Reeve’s writings and Linn’s stereo views together provide one of the finest accounts of any Civil War photography studio.

In this iconic stereo portrait from Lookout Mountain, the image captures the shadow of the photographer exposing the plate that shows photographer Royan M. Linn posing at Umbrella Rock near his photography shack there. (All views courtesy of Jeffrey Kraus).
In the early 1990s, Jeffrey Kraus obtained five of the stereo views that illustrate this article when he acquired the photographica collection of renowned stereo collector Gordon Hoffman. Two views show the exterior of the studio; one view shows the interior and the front desk, on which sits a Beckers viewer to the right and a Brewster viewer towards the left; and two views show the staff photographers posing on Point Lookout.

At the time, Jeff decided to keep only one of the views, the interior of the studio, and sell the others, which he did to Tex Treadwell. Tex passed away several years ago and his vast collection of stereo views was consigned to John Saddy’s stereo view auction and has been gradually sold over the years. In late 2011, Jeff noticed a group of Point Lookout views in Saddy’s auction with “notations on verso in an unknown hand.” As Jeff quickly saw, some of the “notations” from an “unknown hand” were his own from years earlier, and he was excited to have the opportunity to reunite with the five views.

As a comment on our economic times, Jeff was able to acquire them for less this second time around, even though some 20 years had passed.

A few months later, Jeff was able to acquire from fellow dealer David Spahr two more Linn stereo views showing Umbrella Rock that were taken at different times, including one showing Royan Linn himself posing next to what appears to be a photography shack he built at that location.

In this stereo view, photographer Royan M. Linn poses behind two of his photographers or assistants at Point Lookout, where he established a lucrative photographic business in December 1863 that flourished for more than 20 years.

In this stereo view, photographer Royan M. Linn poses behind two of his photographers or assistants at Point Lookout, where he established a lucrative photographic business in December 1863 that flourished for more than 20 years.

A group of photographers, possibly including Royan M. Linn at left, pose for Linn’s stereo camera at Point Lookout in this image taken during the war or shortly afterwards.
The Linns took large-format photographs, stereo views, tintypes and cartes de visite. Some of the large-format images are visible on the back wall of the stereo photograph of the studio's interior. Stereo views were labeled as "Photographic Mementoes of Lookout Mountain." A wartime Linn label advertised 13 different 3-D scenes, including images of Gen. George Thomas and Gen. Joseph Hooker at Point Lookout.

The Linns, like most Civil War photographers, left little in the way of written information. Their legacy is their images. But Union surgeon

Reeve was stationed on Lookout Mountain for more than two months in early 1864, and the presence of the nearby photography studio made its way into his diary on several occasions.

January 21, 1864 was a “beautifully warm Spring-like day” on Lookout Mountain that was suddenly interrupted by “quite an interesting little incident,” Reeve wrote in this excerpt from *James Theodore Reeve: Surgeon, Soldier, Citizen. 1834-1906*A Civil War Commentary, compiled and annotated by Ann Wartinbee Reeve in 1999, and provided courtesy of James H. Ogden III, National Park Service historian at Chickamauga-Chattanooga National Military Park.

Reeve and another doctor were both reading in their office when “we heard rapid steps on the Piazza, and an excited rapping at the door of the steward’s room, which was immediately opened by someone who was evidently in great haste.” Reeve went to see what was up and found himself facing a very agitated
Capt. C. A. Catlin, an inspector general in the 11th Corps.

“Doctor, give me an emetic, quick!” Catlin said. “I am poisoned by having taking Cyanide of Potassium.”

“Are you certain of that, captain?” Reeve asked.

“Yes,” he said. “By mistake. At the ambrotype saloon.”

As Reeve quickly prepared the solution, he learned more. Although fresh water was apparently abundant at Point Lookout, with Royan Linn reporting that he had “free use of a clear, crystal spring that bursts from the brow of ‘Old Lookout,’” the thirsty captain obviously didn’t find that source. Instead, he spotted a pail of water and asked the camera operator if it was drinking water.

“Yes,” said the operator.

Next to the pail, the captain saw a small, wide-mouthed bottle. Thinking it was a drinking cup, he dipped it into the pail. He swallowed two or three mouthfuls before a bitter taste filled his mouth. Only then did he learn the bottle contained a solution of Cyanide of Potassium for preparing photographic plates. Catlin jumped on a horse and hurried to the surgeons’ quarters, trailed by three or four other worried officers.

“Fortunately for him, the solution was evidently too weak to produce serious consequences, and the emetic was probably really unnecessary, though very proper,” Reeve wrote.

“After so thoroughly emptying his stomach with our nostrums, we could do nothing else but invite him to fill it again at our table, which he did with a friend of his, a German lieutenant.”

Reeve himself had his photograph taken at the point that very day, as well as two days later, on Jan. 23, and again on Jan. 25, even though he was annoyed by the prices.

“Crowds are constantly being ambrotyped at the point, the operator charging the enormous price of $3 per picture, which I regard as an imposition on the soldiers,” he wrote.

It is likely that the “operator” Reeve speaks of is Linn or one of his photographers and that “ambrotype saloon” is Linn’s wooden studio, but that cannot be firmly documented, and there are reports that other photographers worked at Point Lookout, possibly independent of Linn.

By March 18, 1964, Reeve had moved to Tyner’s Station (now a part of the city of Chattanooga). There, he received by mail some shocking news from up on Lookout Mountain.

“Roper, the ambrotype artist on the mountain, fell from the rock yesterday and was instantly killed, the fall breaking his neck,” Reeve wrote.

Again, whether Roper worked for Linn (and possibly appears in the imagery of the photographers) or whether he was an independent operator is unknown. The story becomes even more fascinating in light of the fact that Point Lookout became known as Roper’s Rock, but was said to have been named not after an unfortunate photographer, but a Pennsylvania corporal who fell to his death.

By the 1870s, stereo views issued at Gallery Point Lookout featured the backmark of J.B. Linn and listed 44 different views of Lookout Mountain for sale, including The Great Flood of 1867. After Royan Linn died in 1872, J.B. Linn continued to operate the lucrative business until 1886. These postwar J.B. Linn views were very popular, because examples are common in today’s antique photo market.

When the soldiers went home, they took with them their pictures from Point Lookout, and their stories about the magnificent views. The word spread, and Lookout Mountain became one of the most popular tourist attractions in the country and the world, in part because of its distinction of possibly being perhaps the single most photographed spot in the United States during the Civil War.  

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This Linn stereo view of Umbrella Rock was taken at exactly the same spot as our lead stereo photograph that shows Linn, but at a distinctly different time, mostly likely after the shack was removed. The shadow of the photographer can be seen.
Leading 3-D Innovators Free to View Online

Many presentations from the 2012 SD&A 3D technology conference are now available for free online viewing. The annual Stereoscopic Displays and Applications (SD&A) conference delivers deep insights from the latest research and development in all forms of stereoscopic 3D capture, processing, display, and perception. SD&A presentations from innovators around the world were recorded by River Valley TV and the videos are now available via the SD&A conference website: www.stereoscopic.org/2012/program.html.

Highlights of the collection include Ian Bickerstaff from Sony Computer Entertainment who talks about the introduction of 3-D games to the Sony PlayStation 3. This particular presentation can be viewed in high-quality 3-D via YouTube3D.

Pete Bradshaw and Debargha Mukherjee from Google gave a keynote presentation about the Past, Present and Future of YouTube3-D. In another SD&A keynote presentation, Masayuki Kozuka from Panasonic Corporation outlined Panasonic’s business strategy for 3-D technologies.

The 3-D topical talks provide a valuable summary of the SD&A conference presentations for those unable to attend the meeting, and also for those who did attend the meeting and would like a reminder of the presentations. The 2012 SD&A conference was the biggest in the 23-year history of the conference, and making these presentations freely available to the 3-D community has extended the reach of the conference.

Presentations available for free viewing

• Ian Bickerstaff, Sony - Case study: stereoscopic games on the Sony PlayStation 3 (video in full-HD 3-D)
• Pete Bradshaw and Debargha Mukherjee, Google - The past, present, and future of YouTube3D (Keynote presentation)
• Masayuki Kozuka, Panasonic - Panasonic’s stereoscopic 3D technologies (Keynote presentation)
• Lenny Lipton - Polarizing aperture stereoscopic cinema camera
• David Forsyth, UI Urbana-Champaign - More words and bigger pictures (Ple- nary presentation)
• Saori Aida, Tokyo Univ. - Perceived depth of multi parallel, overlapping, transparent, stereoscopic surfaces
• Sam Bae, NASA/JPL - Dual-pupil 3D imaging system
• Melissa Burton, Iowa State Univ. - Diagnosing perceptual distortion
• Christel Chamaret, Technicolor S.A. - Video retargeting for stereoscopic content
• Frederic Devenay, INRIA - Focus mis-match detection
• Piotr Didyk, Max-Planck-Institut - Apparent stereo: the Cornsweet Illusion
• Didier Doyen, Technicolor - 3D cinema to 3DTV content adaptation
• Hironobu Gotoda, National Institute of Informatics – Implementation of an autostereoscopic display
• Andrew Hogue, Univ. Ontario - Stereoscopic 3D video games
• Helmut Jörke, Infitec - New high-brightness interference filter developments
• David Kane, UC Berkeley - Visual discomfort with stereo 3D displays

• Darya Khaustova, Technicolor S.A. - Method and simulation to study 3D crosstalk perception
• Joohwan Kim, UC Berkeley - Visual discomfort of vergence-accommodation conflicts
• Michael Kleiber, Fraunhofer FKIE - Stereoscopic desktop VR system for tele-maintenance
• Janusz Konrad, Boston Univ. - 2D-to-3D image conversion
• Mikko Laakso, RAY - Stereoscopic display in a slot machine
• Douglas Lanman, MIT - Beyond parallax barriers
• Achim Pross, Fraunhofer-Institut - Optimization of a multi-view system
• Vikas Ramachandra, Qualcomm - Unassisted 3D camera calibration
• Jonas Schild, Univ. Duisburg-Essen - YouDash3D: exploring stereoscopic 3D gaming
• Sergey Shestak, Samsung - How much crosstalk can be allowed
• Sylvain Tourancheau, Mid Sweden Univ. - Reproducibility of crosstalk measurements
• Christopher Tyler, Smith-Kettlewell Institute - Measuring 3D discomfort
• Cyril Vienne, Technicolor - Visual fatigue versus eye-movements
• Albert Wang, Cornell Univ. - Angle-sensitive pixels: a new paradigm
• Simon Watt, Bangor Univ. - Real-world stereoscopic performance
• Laurie Wilcox, York Univ. - Crosstalk reduces the amount of depth
• Andrew Woods, Curtin Univ. – Investigating IR-controlled active shutter glasses
• Buyue Zhang, Texas Instruments - Auto convergence for stereoscopic 3D mobile cameras
• Ray Zone, The 3-D Zone - Thinking in Z-space
The Cyclopital3D Lighted Print Viewer Pulls Eyes Into Prints

The Cyclopital3D Lighted Print Viewer demonstrates what’s possible when thoughtful design and quality optics are employed in a modern stereo print viewer. The visual effect is much like that found in a precision, lighted viewer for medium format slides—and the print format for which the viewer is designed comes quite close, with the images only about 1/2 inch wider, and shorter by about the same.

It’s as if the classic 6x13 cm format had joined the digital age in high style, adjusted to the wider format of Fuji W1 and W3 digital cameras, with the image pair printed on standard 4x6 stock. (The goal here is to provide an “orthostereoscopic perspective” matching the optics of the above cameras.) Included with the viewer are extensive instructions for formatting the image pairs with the help of free software programs StereoPhoto Maker and IrfanView. These fill 12 pages in the instruction booklet, but any method that results in properly sized, spaced and aligned pairs will work. Existing larger pairs can be quickly resized in Photoshop and made to fit the viewer format by observing the measurements in one of the sample views. Cyclopital3D also offers a formatting and printing service to those who send in raw MPO images on a flash drive with $1 per photo and $5 shipping.

The viewer’s 70mm coated, achromatic lenses are 34mm in diameter and provide a wide, 47 degree field of view bringing your eyes up close to the images. The challenge, of course, is that these are digital prints, and few can stand up to this degree of magnification. Even many otherwise impressive commercial prints that look great in an OWL or other viewer instantly disintegrate into crude, low res imitations of an older TV set at about 14 inches from the screen.

Recommended are dye sublimation prints from a Canon Selphy CP800 printer ($90 at B&H Photo or Amazon). One commercial printer that also produces acceptable results is the Fuji Frontier “Continuous Tone” system found at some Walgreens stores. The sample prints with the viewer are from the Canon CP800, and although some printer artifacts are visible in certain areas, the impact of the large images tends to overwhelm these. Still, it’s clear that digital print technology remains far from matching the potential of today’s digital cameras. It may be that phone and/or pad screens will win out, eventually providing something like a universal digital 3-D viewing answer. But prints will always have the appeal of convenience and permanence, and serious efforts at viewer improvements are welcome.

Each image is illuminated by five bright, 5000K white LEDs lined up like tiny, intense floodlights an inch above and two inches back from a miniature stage. Pressing a small button above the right focussing knob turns the lights on for two minutes, and the two AA batteries are good for six hours of continuous viewing. The print holder can accommodate up to 10 prints, reducing the number of times it must be passed around in a group, and an available handle makes that sort of handling easier. The geared focussing is smooth, and pressing your eyes against the lenses doesn’t easily change the focus.

Although it takes a bit of effort, the print holder is designed be removed from the front in order to view loose prints or pairs printed in publications, especially those printed using a “screenless” process as found in the ISU magazine Stereoscopy. Better yet are actual photographic print pairs in something close to the 6x13 cm format, or smaller pairs like those from the Raumbild books or British cigarette cards.

The effect is astounding, bringing you closer to historical imagery than ever, limited only by the silver grain of the original images. Some alignment is of course required before you carefully lower the viewer over the prints, but any well printed photo will reveal things you may not have noticed in other viewers. One requirement is that the views be printed on glossy paper. The intense LED lighting will emphasize any texture at all, even in “N” surface papers, as well as any scratches or flaws.

Even more impressive are 6x13 format glass stereos, produced in the thousands in the early 20th century but seldom viewed through quality viewers. This is a use probably never anticipated at Cyclopital3D, but lowering the viewer over a glass slide on a small light box works beautifully and reveals the full potential of these often razor sharp, fine grain, wide tonal range images. It probably wouldn’t be hard to fashion a holder for 6x13 glass views, although lenses of this quality would require a good texture-free diffuser or a lighting system equal to that built-in for prints.

More on the Cyclopital3D Lighted Print Viewer can be found at www.cyclopital3d.com where the viewer’s price is listed at $379.95.
Amelia Earhart
First Lady of the Skies

by Richard C. Ryder

Aviation had been in the news a lot over the last few months. Back in March, Amelia Earhart had begun her much-publicized attempt to fly around the world, winging westward across the Pacific from Oakland, California, to Hawaii, but crashing on takeoff from Oahu's tiny Luke Field at the start of the second leg. The crumpled Lockheed Electra had been shipped home for repairs, and Amelia had been forced to postpone the attempt. Then on May 6th, the mighty German airship Hindenburg had exploded while attempting a landing at New Jersey's Lakehurst Naval Air Station, a spectacular disaster constantly replayed in movie newsreels. Less than two weeks later, Amelia was off again, flying east from Oakland to Florida at the start of her second circum-global attempt. This time she would be flying with only former Pan Am navigator Fred Noonan, who had extensive experience in Pacific flights but was prone to drink, her alternate navigator—and radio expert—Harry Manning having opted out of this luck. For the crew of the Coast Guard cutter Itasca, July 2nd, 1937, promised to be a dramatic day indeed. For over a week, they had been operating near this tiny, god-forsaken fly speck of an island, Howland by name, located in the middle of the vast Pacific, some 1900 miles southwest of Hawaii. Yet today would make it all worthwhile.

They were there to welcome Amelia Earhart at the end of a brutal 18-hour, 2550-mile flight from Lae, in eastern New Guinea. Earhart would refuel on the island, then take off for Hawaii, then on to California, where her record-breaking global flight would end in triumph on July 5th. Already they could hear her radio transmissions. Apparently she was having some difficulty finding the island. "We must be on you but cannot see you;... gas is running low."

Evidently, Earhart could not hear Itasca's transmissions. She was not a skilled radio operator and did not broadcast long enough for the cutter to get a bearing on her. To assist, Itasca spewed a column of heavy black smoke from her funnel, a marker which should have been visible for at least a dozen mile radius. A final desperate message. The strength of her signal suggested she was within about fifty miles of Howland. Then only silence.

She had been born about as far from the sea as one could imagine, at Atchison, Kansas, in July of 1897. A tomboy by nature, Amelia developed a calledous view of men based on experience with her doting but alcoholic father. The family bounced from town to town, with Amelia doing volunteer work with wounded pilots in Toronto during World War I. After moving to California, she had taken her first plane ride at an air show. This led to flying lessons and eventually her own plane. By 1928, Amelia was living in Boston with her now-divorced mother and had gained local notority as an aviatrix when publisher G.P. Putnam picked her for the first female trans-Atlantic flight. Yet she was essentially a passenger, keeping the flight log while male crew members did the flying and navigation. In the event, they were grounded in Nova Scotia for thirteen days by heavy fog before pilot Bill Stultz was able to fly the big tri-motor seaplane safely to Wales.

She was given a ticker-tape parade through New York and dubbed "Lady Lindy" based on a vague resemblance to the famed aviator imparted by her short-cropped hair and similar flying gear. Fame aside, she was not the best of pilots and in 1929 only came in third in a California to Cleveland women's air race derivative ly nicknamed the "Powder Puff Derby" by the male-dominated press.

With George Putnam as her agent and rumored lover, she was now much in demand on the lecture circuit, endorsing products and Women's causes, as well as sporting her own line of fashions. Yet flying was always at the heart of it all, with Amelia establishing women's speed records in her trusty red Lockheed Vega and piloting an autogryo (an ancestor of the helicopter) to a new altitude mark. In 1932, to mark the 5th anniversary of Lindbergh's flight, she flew from Newfoundland to Northern Ireland, becoming the first woman to solo across the Atlantic.

By now she was Mrs. George Putnam, the pair having married after his first wife divorced him in 1931. The Putnams mixed with Hollywood stars and high society, with Amelia taking friends like Eleanor Roosevelt aloft. In 1933, Amelia established a new trans-continental speed record, flying from California to New Jersey in just over 19 hours. Two years later, she became the first woman to fly solo from Hawaii to California, following this almost immediately by a solo flight from the latter to Mexico City.

By now, she had, as she put it, "about one more flight in my system," and planned to retire from "stunt flying" after one last triumph. This would be a flight around the world approximately following the equator, something no one had done before. For the flight, the single engine Vega, her "little red bus," would be replaced by a larger twin engine Electra, funded in part by Purdue University as a "flying laboratory."

Then had come Honolulu, where a mechanical failure had caused the seriously overloaded plane to ground-loop, tipping onto its right wing and collapsing the landing gear. Two months later, after the shake-down flight from Oakland to Miami, they were underway in earnest, Fred and Amelia heading southeast across the Caribbean to Puerto Rico and Brazil, then over the Atlantic to Dakar in West Africa, transiting the Sahara and skirting the Arabian coast to India, all before finally heading down through Southeast Asia to Singapore, Australia and New Guinea. Along the way, they had had to contend with brutal tropical heat and persistent engine problems. Twice they had been forced to turn back in Burma due to severe weather. They had been gone more than 40 days,
with Amelia occasionally flying 12 or more hours per day. Both were totally spent, yet now they faced their most daunting challenge, finding an island no more than two miles long and half a mile wide, yet located 2500 miles away—all at the end of a flight nearly half again as long as any they had done previously. They never made it.

Oddly, since the doomed flight passed east over the International Date Line, Amelia and Fred likely died the day before they took off—at least according to the local time zones! (The same phenomenon provides the key plot twist in Jules Verne’s Around the World in Eighty Days.)

In the immediate aftermath of the disaster, the U.S. Navy launched a massive search, with the aircraft carrier Lexington, battleship Colorado and dozens of planes supplementing the Itasca. Islands hundreds of miles away were overflown, looking for wreckage or signs of life. Yet in the end, all their efforts yielded nothing. Figuratively at least, Earhart refused to die. The most unbelievable rumors continued to surface over the years. Amelia had been a spy, her disappearance a ploy to allow the U.S. Navy to conduct aerial reconnaissance of Japanese-held islands in the central Pacific. Alternatively, she had been the one doing the surveillance, had been forced down, and either imprisoned or executed by the Japanese. There had also been claims of radio messages received from the doomed aircraft for days after the disappearance.

Then there was Nikumaroro (Gardner), a desolate island in the appropriately named Phoenix group, located about two hundred miles southeast of Howland, where Earhart and Noonan might have attempted a forced landing. A woman’s shoe in Amelia’s size, 1930s style cigarette lighter which could have been Noonan’s and a metal piece which might have come from the Electra were found there in 1989, eliciting much speculation but no further hard evidence. And Nikumaroro had been overflown during the extensive search. Recently, a period photo possibly showing a wheel of an Electra poking up out of the water near the Nikumaroro shore has been seen in the news in connection with a more extensive search of the island planned this summer with the participation of the Discovery Channel. See http://tighar.org/Projects/Earhart/NIKU7.html.

Despite all the rumors, it seems likely that Earhart and Noonan simply missed their target, ran out of fuel, and crashed at sea somewhere within a hundred mile radius of Howland Island. Tiny Howland had been the key. In the end, finding a small needle in such an enormous, very wet haystack had proven beyond their ability.

Circumstances too had conspired against them. A fatal flaw in the compatibility of the plane’s radio systems prevented their receiving vital information, while expansion of the gas taken on at Lae, stored in drums in the New Guinea heat, may have effectively shrunk the Electra’s fuel capacity, thus unknowingly diminishing their reserve.

Ironically, had it not been for the crash in Hawaii on the first attempt, (Continued on page 45)
ARCHIVAL SLEEVEs: clear 2.5-mil Polypropylene

NEW CDV (2 3/4" X 4 3/8") per 100: $9 case of 1000: $85
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Vol 1-1 through Vol 34-03
1974-2008

by Sherryl & Ernie Raidin
"Presho First Celebration, July 4, 06 Looking North from Arcade Hotel." Named after J.S. Presho, an early settler from New York who arrived in the region in 1858, the town celebrated July 4th in 1906 with its first community festivities. In November 1905, the Milwaukee Land Company brought a professional auctioneer from Chicago and held a lot sale. A special train brought bidders to the town and the first lot sold for $500, $480 over the list price. Early Presho had a population of more than 2000. To accommodate the numerous transient visitors and settlers, many bunkhouses were built with most businesses lining rental cots upstairs. Mr. Morris built the Arcade Hotel, Presho's first. A framework was erected on both sides of Main Street. A racetrack and grandstand were built and probably the first auto race ever held west of the Missouri River took place on that day. The cars were each two-cylinder; one a Buick and the other a Reo. The Reo won the race. An estimated 5,000 people attended the celebration. (Thank you for historical facts to the 1926 Fourth Year English Class at Presho High School, transcribed by Dianna Diehm in 2001.)

Notes
7. For further discussion, see the Epilogue in Martha A. Sandweiss, Print the Legend: Photography and the American West (New Haven and London: Yale University Press, 2002).
8. For further discussion, see Odd S. Lovell, Norwegian Newspapers in America: connecting Norway and the New Land (Minneapolis: Minnesota Historical Society Press, 2010).

Amelia Earhart (Continued from page 43)

they might have made it. They would have been fresher, far less exhausted and subject to “jet lag” early in the trip, while the distance from Hawaii to Howland was 650 miles less than that from New Guinea. They would still have had Harry Manning, the only one who truly understood the complexities of the Electra’s radio systems. Finally, compared to tiny Howland, New Guinea would have been virtually impossible to miss at the end of that long central Pacific leg.

But then Amelia would not have become the iconic legend she remains to this day. As she herself noted: “Please know I am quite aware of the hazards… Women must try to do things as men have tried. When they fail, their failure must be but a challenge to others.”
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COMIC AND SENTIMENTAL STEREOVIEWS by F.G. Weiler for “The Weiler Project,” an on-line scholarly archive. Fair market value paid. Contributions of scans at a high D.P.I. are welcome. davism95@nycap.rr.com, (717) 574-0268.

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