When I decided to copy a group of my old stereo cards onto Realist format for projection, I thought that the sliding-bar method was the better. (I had considered a stationary camera and sliding cards.) Rather than build a sliding bar device, I put my Bolex movie titler to use. It is a well machined tool with sleek tubes some 83cm long designed by a Swiss engineer back in the fifties. Although made with Bolex H cameras in mind, it also has a provision – a second camera cradle – for positioning any kind of movie camera for titling and animation work. The long sliding bars were made to allow the movie cameras to move with ease forward or back to fill whatever size field is being shot.

A camera mounted sideways on the alternate cradle makes a good sliding bar arrangement for stereo closeups, or for what I had in mind. I wanted to mount my Voightländer Bessamatic and move it sideways to shoot one of the stereo pictures on one 35mm frame and the other picture on a second frame.

What I needed to build, then, was the jig to hold the stereo view-cards.

I envisioned the need for holding the curved cards accurately with allowance for raising or lowering the cards as well as adjustments for camera-to-card distance. And I wanted this project to be like my last one – one that used materials I already had on hand without any trips to the lumberyard or hardware store. I was not disappointed.

I used one-inch lumber and eighth-inch and quarter-inch hardboard, Elmer’s glue and small flat-head wood screws. The part which actually holds the stereo cards is made of one-inch wood cut to match the typical curve of a stereo card. A cardboard spacer was glued in between, leaving a slot for the card to slide in. The two sides of the holder were screwed onto eighth-inch hardboard far enough apart to allow some sideways adjustment of the card if necessary. The bottom was screwed on, and this part was attached to the vertical quarter-inch hardboard with bolts and wingnuts. A vertical slot in the back allows the card holder to have vertical adjustment.

The whole device is attached to the titler’s second long bar (all but hidden, in the extreme foreground) by hardboard strips which are slotted to fit over the bar and also are horizontally slotted, as visible, for camera-to-card distance adjustment. Pieces of tape on the larger bar are adequate to act as stops to control the sideways movement of the camera because there is a lot of room on a rectangular 35mm frame to locate a nearly-square stereo view.

I prefer to shoot the left picture first so that when the film is later cut into pairs for mounting, left is at the left, and I can freeview if I desire. Two closeup lenses were required, totaling Plus 5, for the lens-to-subject distance of about seven inches. I use Reel 3-D Enterprises’ mounting gauge so that all of my Realist slides may be used for projection. The only alteration I have made to Reel 3-D’s gauge is a strip of .028” brass permanently affixed to the top so that cardboard mounts may be firmly butted up against it for positive alignment.

I spent the better part of a day cutting, fitting and constructing my device. I see no real need of painting it, but I did put some flat black behind the view cards’ tops.
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Front Cover:
The View-Master column in this issue is devoted to the memory of artist Florence
Thomas, who died in June after a long career in sculpture which included 25
years of work on View-Master story reels. As a young artist in the 1930s, she
worked on WPA projects including this Alice in Wonderland relief sculpture,
which ever since has hung in the children’s room of the library in Portland,
Oregon. The figures provide a good preview of those she would later create for
millions of children to enjoy in their View-Master viewers.

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issue of the next year. All new memberships received will commence with the March/April issue of the current calendar
year. When applying for membership, please advise us if you do not desire the back issues of the current volume.

Member, International Stereoscopic Union
New NSA Folders Hot Off the Press

The new NSA membership folders are at last available. Normally this wouldn't be such hot news, but there was more of a gap than usual this time between running out of the old ones and getting a new bunch printed showing current membership rates. Our excuse is that after several years of the same basic design, a new brochure has been created with some fine tuning to the text and (most noticeable) a new design by Stereo World Art Director Mark Willke.

A number of members who regularly help spread NSA folders around at likely stereo gathering places had run out; and NOW is the time for them to send for a stack of the new ones! Those who just keep a few in their camera case or glove compartment or saddlebag should also send for the new folders, replace the old ones, and remember to hand one to anybody who even hints at some interest in anything related to stereo images.

The Public Image

The variety of 3-D images and techniques being presented to the public has steadily grown more sophisticated, if limited in distribution. The items in this issue on PHScolograms™, STARE-E-Os, and the stereography in the current Minolta Mirror all illustrate this well. While many systems mentioned in the media will probably never be mass produced, like the yet-another lenticular 3-D video system from NHK on page 46 of the October '91 Popular Science, there is one 3-D imaging device already growing in popular awareness and even experience.

"Virtual Reality" systems, involving helmet mounted LCD stereo screens and interactive controls over the images generated on them, have become top subjects for futurists and high tech experimenters everywhere. Articles in both the technical and popular press as well as segments on television tend to concentrate on the interactive, do-it-yourself reality made possible through sophisticated computer programs and these sight-and-sound helmets. Often, after mentioning the neat stereophonic sound, the fact that the very wide angle images are in fact 3-D is disposed of in a single line.

The basic devices have been around for years in the form of remote sensing systems designed for NASA so that people could manipulate stereo video cameras with a turn of the head while watching the images through a Liquid crystal screen stereoscope strapped to their head. Some now predict that in the form of consumer electronics systems designed for entertainment, such Virtual Reality devices will surpass everything from Nintendo to Monday night football in eventual popularity. Our relationship with reality (and maybe each other) is predicted to change - and a 3-D image will be at the heart of it all! Whether you are worried or just curious about this, there is a new book that can fill you in on nearly all the current thinking about the matter, both technical and social.

Virtual Reality by Howard Rheingold (Simon & Schuster, Summit Books, 1991) does pay some attention to the stereo vision aspect of the subject, and even mentions the contribution of Eric Howlett, developer of the ill-fated LEEP wide angle stereo camera. Howlett worked with NASA on wide angle viewer lenses, like those used in the viewers for his camera, for Virtual Reality devices. Will the stereoscope, in the form of this new device, become the ultimate electronic drug of the masses? Or will it contribute to some new plane of human evolution and communication? Read the book - and try one of the helmets if you get the chance.

More Thanks

Since the list of donors in the May/June issue was compiled, more generous people have made special donations to the National Stereoscopic Association, and deserving mention are: LeRoy G. Barco, Gary J. Hinze, Paul King, and Dave and Robin Wheeler. T.K. Treadwell also reports that matching donations were made by Becton Dickinson & Co. and Atlantic Richfield Co.

3-D Highlights Collectors' Forum

The decorative and technical aspects of early 3-D cameras and viewers will be covered in a talk by NSA member Fred Spira at the second annual Photograph Collectors' Forum. Sponsored by Swann Galleries and the American Photographic Historical Society, it will be held 3:00 p.m. November 24 at the Gallery, 104 East 25th Street, New York City.

Mr. Spira, a leading photographica collector, is founder and past-president of Spiratone, Inc. and has written and lectured extensively on Stereoscopic photography. His talk is titled "Illusions of Depth: 3-D Photography From its Beginnings to the Turn of the Century" and will be followed by hands-on demonstrations of unusual stereo items.

Admission to the forum is free, but reservations are required. For more information, contact Daile Kaplan or Denise Binday at 212-254-4710.
Maria's Baskets
I have some information to answer the question asked by Peter J. Thompson on the Niagara wire walker, Maria Spelterini. (Letters, May/June '91.) Ms Spelterini crossed the Niagara Gorge a number of times during a week-long engagement the first week of July, 1876 as part of the U. S. Centennial celebration. Wearing peach baskets was only one of the things that she did during her trips. On one occasion she crossed with her arms and legs shackled in chains. On another occasion she crossed with her head inside a paper bag. On yet another occasion she crossed one way walking forwards, and the return trip walking backwards. And on yet another trip, she skipped and danced her way across the gorge on the 1000 foot long, 2 1/4 inch diameter wire.

Stereo World readers may be interested in two publications which deal with the Niagara stunters. I wrote an article on stereo and the stunters in the August/September 1986 issue of Photographic Canada, which is available for $4.00 from the Photographic Historical Society of Canada, Box 115, Station "S", Toronto Ont. M5M 4L6, Canada.

Much of my information came from Roll Out the Barrel: The Story of Niagara's Daredevils by Francis J. Petrié. The book should still be available from the Boston Mills Press, 98 Main St., Erin, Ontario NOB 110, Canada.

Robert G. Wilson
Toronto, Ont.

Tru-Vue Advertising Films?
I hope that other Tru-Vue collectors are as curious as I am to know how many Tru-Vue advertising and other special reels were issued. As far as I know, those reels were never listed in any Tru-Vue catalog list.

I will attempt to compile a complete list if Tru-Vue collectors will send me a list of all advertising and special reels in their collections. The complete list would then be published in Stereo World, together, perhaps, with views from some of the reels.

I have the following in my collection:
- Academy of the Visitation 1 & 2
- Arbuckle Coffee
- Beech-Nut Gum
- Consolidated Edison's Double Bargain
- Eclipse Lawnmower No. 2
- ESSO - The Challenge
- Grunow Refrigerator
- Hollywood Beach Hotel
- Hotel Test
- Little Bit O' Heaven
- Jahn & Olier
- Nehi
- Popsicle Sales View for 1952
- Rock Island Bridge and Iron Works
- Tech Test
- Times Picayune
- Tru-Vue Factory Tour
- White Company
- Wyoming Hereford Ranch 1949
- Wyoming Hereford Ranch 1950

Stephen Langenthal
135 East 54th St.
New York, NY 10022

A View of Forever
As a March 1991 member of the NSA, I would like to express my appreciation of seeing my first issue of Stereo World. And it is an extra pleasure to read that the March/April issue is the third color issue in the history of the NSA. The long delay in its production was worth the wait.

As a technician involved with aerospace work, I really enjoyed the hyperstereos of atmospherics. It will seem like forever until the next issue of Stereo World arrives.

Ron Paul Smith
Sharon, MA

In Search of Brownies
We are researching the life and work of Palmer Cox, author/illustrator of the famous Brownie series of children's books. Cox became famous and wealthy with his books, a wide range of products based on his characters, and a popular musical, Palmer Cox's Brownies, which traveled across the USA, Canada and the UK.

One of the products I found at the Strong Museum in Rochester is a stereoscopic view card made in 1903 by the International View Co. The Brownies were drawn into the photograph and it appeared to be one card in a story or series.

Could [readers] help me in locating the complete set? I would only need, at this point, good photocopies of them.

Wayne Morgan
75 Markham St. Unit 2
Toronto, Ont. M6J 2G4
Canada

Spotlight on Longfellow
I would like to correct any mistaken impressions that the photograph of Henry Wadsworth Longfellow and his rather young looking "wife" (item 60) in the Annual Spotlight Auction (San Antonio, June 21, 1991) may have left with any viewers. The photograph taken about 1875, when Longfellow was in his late sixties, shows a very dignified man with a top hat and full beard with a younger woman in front of Craigie House, his home in Cambridge, Massachusetts.

Several facts illustrate that the "wife" cannot have been Mrs. Longfellow. Longfellow was married twice. In 1831, he married Mary Storer Potter who died in November, 1835. He was married again in 1843, to Fanny Appleton, the daughter of a wealthy Bostonian.

In July, 1861, Mrs. Longfellow accidentally set her dress on fire while using a candle. Henry heard her screams and came running to find Mrs. Longfellow engulfed in flames. He was unable to save her life and she died on July 9, 1861. Henry never remarried and he lived in Craigie House until his own death in 1882. Because of burns on his face, received while vainly attempting to extinguish

(Continued on page 40)
Salt Lake City is among the most photographed cities in the world. The streets and the various religious/public buildings have been captured in detail and in panorama. Although it is possible that pictures were taken of the valley and the city site earlier, the first photographs still in existence appear to be daguerreotypes by Marsena Cannon. There are records of earlier attempts to photograph the area, yet it appears unlikely that any were successful.

John C. Fremont led major expeditions through the area starting in both 1843 and 1853. In 1845, he camped in the spot that two years later would become Great Salt Lake City, and might have been the first person to photograph the valley.

It is known that Fremont took daguerreotype equipment on this expedition, and made attempts to use it. Judging from reports, however, there is some question as to whether he was still trying when the expedition reached as far as the Salt Lake Valley. According to both Fremont and other members of his party, he had great difficulty with the process. He blamed the elements. Therefore, it is highly likely that he had abandoned his efforts by 1845. We will probably never know. Whether successful
daguerreotypes by Fremont ever existed is one of the many mysteries of history.

Fremont did correct the error on his 1853 expedition. He brought with him a photographer named S.N. Carvalho. But here again, there were problems. Carvalho’s equipment became too cumbersome and had to be abandoned.

C.W. Carter, “East Temple Street, West Side, Salt Lake City.” This overview of Main Street (East Temple) includes the Tabernacle at rear.

December 10 of that year, the first advertisement for daguerreotype likenesses taken in Great Salt City appeared in the Deseret News. Marsena Cannon has the distinct honor of being the first photographer to produce Salt Lake City images that remain as part of the historical record. Cannon is not known to have taken a stereoview, but he did sell them in his gallery at one point.

The first known stereo of Salt Lake was marketed on the London Stereoscopic Company label, probably in 1859 or 1860. The view illustrated here lists James L. Warner as the “agent”, but gives no indication as to whether he or someone else actually took the photograph. It may have been William England, a photographer who worked for the company in the wilderness of western Colorado or eastern Utah; most likely before he got anywhere near the Salt Lake Valley. Again, however, the proof has vanished in the black hole of history.

At any rate, as a result of Fremont’s reports of his trip in 1843, and the reports of other similar explorers, Brigham Young picked the Salt Lake Valley to settle. During their second year of occupancy, the Mormons had already progressed to the point of starting businesses and building shops. Sometime in the beginning of the following year, 1850, East Temple (now Main Street) began to evolve as the center of the business district.

In Salt Lake City

Excerpts from “Photographers of the Western Gateway”
(A work in progress)
the United States at that time. However, most of England’s work that remains was done in the eastern U.S. and it seems unlikely that he traveled to Salt Lake City at this early date. It is also entirely possible that the London Stereoscopic Company purchased the negative, or even copied someone else’s photograph. In this case it could have been taken by Cannon, Charles Savage, or a traveling photographer.

While it is certain that a number of other photographers set up shop in or passed through Salt Lake City in the 1850s, Cannon remained relatively uncontested as the ranking photographer in the period from 1850-1860. The end of the decade, however, saw the arrival of the two men who would soon dominate the photo scene and are responsible for 90% of the remaining stereoviews of the city.

Charles Roscoe Savage arrived in the Salt Lake Valley in 1860, and almost immediately went to work for Marsena Cannon. Charles William Carter came with a wagon train of relatives in November, 1864. At some time in the 60s, Carter worked for Savage. When a group of wealthy residents established a business complex on East Temple, he received the backing of the Walker Brothers to set up Carter’s View Emporium. Savage

C.W. Carter, “East Temple Street, East Side, Salt Lake City.” Salt Lake House on Main Street.

C.W. Carter, “EAST TEMPLE ST.” Pictured are wagons of the type used by the pioneers. Note Carter’s photo display at lower right.
and Cannon opened a new gallery in 1861, in the first house north of the Salt Lake house over a store on the east side of Main Street between First and Second South. Their gallery continued to be advertised in the Deseret News, but by the following year Cannon was away on church business. Savage had a new partner, an artist, George Ottinger, who was the son of a friend of Savage’s from the east. Their talents complimented each other and they joined in a profitable business. Their greatest success was painted photographic miniatures.

Beginnings for both Carter and Savage were slow, but by the late 1860s both had established themselves as dominant forces on the photographic scene. As Savage’s first work was produced under Cannon’s auspices and most of Carter’s early business was more than likely portraiture, it is difficult to determine exactly when either began to publish large numbers of photographs depicting the city and its inhabitants. However, by the end of the 60s, both leave us with sufficient evidence that they intend to document any new developments in the growth of Salt Lake City and the surrounding countryside. They made trips to photograph the mining efforts, the railroad, and other events of the westward movement. Their interest in the city itself left a great legacy for historians of Salt Lake City.

As of this time, countless other photographers had made an effort to document the city and its inhabitants. However, by the end of the 60s, both leave us with sufficient evidence that they intended to document any new developments in the growth of Salt Lake City and the surrounding countryside. They made trips to photograph the mining efforts, the railroad, and other events of the westward movement. Their interest in the city itself left a great legacy for historians of Salt Lake City.

As of this time, countless other photographers had made an effort...
to include at least a few photographs of the city in their stock of stereoviews. Most of these were photographers based in other cities who traveled through Salt Lake on survey expeditions, photographing for the railroad, etc. Some of those who produced images of a quality rivaling that of Savage and Carter were William Henry Jackson of Omaha and Denver, J.J. Reilly of New York and California, Charles Weittle of Colorado, C.L. Pond of New York, A.J. Russell (the official photographer for the Union Pacific Railroad, 1868-70), and an unknown photographer employed by E. and H.T. Anthony and Company. Jackson passed through Salt Lake City a number of times while he worked with the Hayden Survey party, photographing many parts of Utah as well as the city.

Some time in this era, T.C. Roche was the western photographer for the firm of E & HT Anthony. It is likely that he took some of the images of Utah published on the Anthony mount. However, the Anthonys were known for acquiring the negatives of a variety of photographers and publishing them under their label, so it is cer-

C.R. Savage. Overview of Temple Square showing Savage's Art Bazaar at the far left.

C.W. Carter, "EAST TEMPLE STREET, WEST SIDE." Edward Martin’s Gallery at right.
tainly possible that other unnamed photographers were responsible for some of the Anthony's Salt Lake City views.

While each of these photographers left a few photographs of the city, Savage and Carter provided the major documentation of the city's history from the time of their arrival.

Because the city was founded in 1847, it was already well developed when Carter and Savage arrived. It had been laid out in a very precise fashion by Brigham Young. The plan was originated by Joseph Smith, the Mormon prophet, who had a revelation about the way in which a biblical city was arranged. As a result, the city is divided into blocks, or plots, and then evenly measured wards. The blocks are forty rods square, each block containing ten acres. There are seven blocks to a mile, including cross streets.

When the city was established, agriculture was its only support; therefore each family needed space for subsistence farming and the property was allocated accordingly. Each plot was expected to be "a miniature farm". Thus only eight farms were allotted to a block, with one and a quarter acres of land apiece.

Each of the leaders of the Mormon church chose his plot, and then lots were drawn for the remaining property by the lesser
citizens. Important individuals were given the most central locations. Many of the best locations were sold later to businesses as the center of the city became more commercial. The Walker House (hotel) is an example of these businesses. Some of the important houses remained, in close proximity to the temple.

After having laid out the city and established the property boundaries, Brigham Young made his home in the square nearest the temple, constructing several adobe buildings there. As his family grew, he built a splendid residence, one of the finest in Salt Lake City, which was completed in 1854. It is called "The Beehive House" because of the beehive shaped cupola atop it. This house consisted of many rooms and a number of outbuildings.

Over the years the Young estate bore many changes and renovations, and was an excellent subject for photographic documentation.
Salt Lake City's many resident and itinerant photographers were equal to the task. The estate grounds were host to a personal schoolhouse, the Lion House as well as the Beehive House, and multiple outbuildings. It was surrounded at times by walls with gates, or hedges of shrubbery, employing numerous service personnel in their maintenance. The Lion House is a narrow, two-story plaster covered building extending more than a hundred feet back from the street with a dozen dormer gables on each side of the low roof.

To provide for his many wives and children, Brigham Young built other residences outside his main complex. Gardo House, also known as Amelia's Palace, was a most attractive home constructed to provide for large social gatherings, and intended to be the home of a favorite wife, Amelia. However, it was not completed until after his death in 1877.

One of the striking features of Brigham Young's property was the eagle gate entrance, an unusually shaped arch straddling State Street.

C.R. Savage. The Mormon Temple under construction with the finished Tabernacle in the background.
It consisted of four masonry pillars supporting a large eagle above the street, and marked the entrance to City Creek Canyon. Here citizens paid a toll to enter the canyon for supplies of wood, coal or stone. Each photographer who pictured the residences included in his composition the eagle suspended over the entry gate. Savage shows a loaded cart drawn by two strong horses on its way through the gate. While Brigham Young's property was between North and South Temple streets, east of East Temple Street, near the city center, it was Temple Square that was the very center of the city. The square was enclosed on three sides by a ten to twelve foot wall of red sandstone on which were placed layers of adobe. It was constructed between 1852 and 1855. On each face of the wall there were thirty adobe pilasters protected by sandstone copings. It ran a full city block in each direction with four wooden gates later replaced by iron grill work. Temple Square was bounded
According to Carter, the bank building was in ruins, with its wooden roof burned off and top floors gutted.

By four “Temple” streets, designated for the four directions. Moving out from there, streets were labeled First East, Second East, etc., as they spread out. There was a First South, Second East and a First North, Second East, etc. This system made the determination of distance from the city center simple arithmetic.

Although individual residences consumed the major part of the land at the center of the city, the Mormon religious buildings were in prominent locations, too. The city was built around the Temple which was planned from the outset to be the very center with all else radiating out from it. Since the Temple was to be a carefully executed monument, its construction was not begun at once.

Instead, shortly after their arrival, the Mormons erected a temporary tabernacle. It was the first building constructed for community worship. It also served as a place in which to hold various mass meetings for purposes other than religious affairs.

The grand plan was to build an elaborate permanent structure, a dome-shaped tabernacle on the southwest side of Temple Square. Construction began in 1863. The dome was supported by an elaborate wooden lattice. The framework of the truss was similar to that used in building suspension bridges during the 1860s. The roof rests on forty-four cut sandstone.

C.W. Carter. The First National Bank building rebuilt as the Masonic Hall after the fire.
pillars at the perimeter. No nails or other iron were used in its construction, which was completed in 1867. It is the work of William H. Folsom and Henry Grow, who was originally a bridge builder.

Savage and Anthony both published photographs of the tabernacle at different stages of construction. Views include the wooden interior structure of the half-finished dome, which is a remarkable perspective of the growing edifice. Upon completion, the tabernacle was outfitted with a fabulous pipe organ. The interior of the new tabernacle was frequently photographed. This second tabernacle, built within ten years to replace the first [temporary] structure, still stands in its original shape and is the home of the Mormon Tabernacle Choir.

By the 1850s, besides a number of residences, there were several stores on Main Street. Eventually this section became the commercial area, with its central location. Here stood large stores; the Salt Lake House, a hotel a bath house, a bakery, the newspaper, and several taverns. Since the taverns clustered together, the derogatory nickname, "Whiskey Street" was sometimes applied to the west side

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C.W. Carter, "EAST TEMPLE ST., WEST SIDE." Early Co-op shops on Main Street with their Zion's Cooperative Mercantile Institution signs.

C.W. Carter, "WHOLESALE CO-OPERATIVE STORE, EAST TEMPLE STREET." Ute Indians in front of the building in which ZCMI merchants were first consolidated in 1875. Both Carter and Savage are known for their views of Native Americans, but few were taken in such urban settings as this.
of Main, between First and Second South.

Thus when Carter and Savage arrived, they found a number of religious and commercial buildings as well as homes in the downtown area of the thriving city of at least 15,000 people. Their photographs elucidate the further development of the city, from the building of the theater and the second tabernacle to the lengthy construction of the Temple.

The building of the Temple was an event of considerable concern to the city and interest to photographers, and it was photographed regularly over the forty years that passed during its construction. In 1847 Brigham Young and the elders had decided exactly where the Temple would be. The site was consecrated on February 3, 1853 and the cornerstone laid April 6 of that year.

The Temple was built of granite quarried in Little Cottonwood Canyon, twenty miles away, a fair distance in those days. The foundation was of gray granite, sixteen feet deep, and said to contain 7,478 tons of rock. Work progressed slowly until 1873 when the railroad from Little Cottonwood Canyon was completed and the stone could be transported to the city by rail. This sped up the work considerably. In 1877 the walls were twenty feet high. The capstone was put in place April 6, 1892 and the dedication ceremonies were held on April 6, 1893. The Temple measures 186 by 118 feet and the tallest spire is 210 feet high. Stereo views were the post cards of the day, prepared for commercial sale, depicting the various buildings of the city. Every merchant wished to have a picture of his establishment. Quantity seemed to outweigh artistic quality if the images were technically successful. However, some photographers concerned themselves with unusual elements and careful composition. Carter and Savage were among these photographers. Even in their "mundane" subjects a touch of whimsy or pure artistry is often visible.

For example, study the photos of buildings on East Temple Street. This exciting series documents a major disaster. In Savage’s initial photograph we see the imposing First National Bank building on East Temple, surrounded by frame structures dating from an earlier era. Prosperity is exuded by this imposing edifice. The photograph shows minute detail of the signs, railings, and decorations on the bank and even on the carriage in front.

In 1875, fire gutted the jewelry store and ruined the upper floors of the bank. Notice also in this second photo by Carter, that the Salt Lake Furniture Company had given way to Siegel Bros. Clothiers with a fancy new triple awning.

Carter is responsible for the final photo showing the reconstruction of the former bank building, now the Masonic Hall. Notice his careful composition to duplicate his earlier photo documenting the fire scene.

Many businesses were depicted in stereo views, but the most outstanding was the ZCMI building, constructed by the Mormons to house merchants who were members of the faith. Various elements of the ZCMI (Zion’s Cooperative Mercantile Institution) dot the center of the business district by 1869.

From its origins in 1868 the cooperative was a group of Mormon merchants banded together to try to gain a share of the business which the early gentile (non-Mormon) entrepreneurs had garnered soon after the city began. The organization also attempted to organize stores in the outlying areas to which there had been little commercial service. Each individual shop sported a sign indicating its membership in the church and the original ZCMI. These signs are visible in many of Carter and Savage’s photos of Main Street and the rest of the business district.

Membership was obvious when a sign containing an all-seeing eye and the words “Holiness to the
"Lord" was mounted in a prominent location. The wide scope of the organization was evident in the variety of shops exhibiting the sign: a clock shop, the bakery, and the Eagle Emporium - a department store which was the center of the ZCMI. In early pictures, the "Old Constitution Building", the first merchant store erected in Utah, has a sign on it.

The small merchants remained as individual proprietors until 1875 when ZCMI was consolidated into one entity similar to a modern department store. At this time, the first building pictured in the middle of East Temple (more familiarly known as Main) between South Temple and First South Streets was built. This edifice stood, unaltered, until 1880 when it was doubled in size.

Besides taking many photos of the city, Carter and Savage also went out into the countryside to depict all of the aspects of life in their time. Some outstanding examples of these still exist, especially those from nearby mines.

The photos taken by Carter and Savage indicate that they had exceptional technical skill. They mastered a well-defined depth of field. It is obvious that they made excellent use of light. The clarity and full range of tones are evidence of print quality.

At this time, to produce quality stereos, a photographer had to use his equipment with great skill. He composed the photo through the ground glass, figured the exposure, exposed the plate for the proper time and then removed it to a dark container. Next, he carefully employed the necessary chemicals to develop the negative, and after it had dried, made a print from it.

Besides the necessary technical competence, Carter and Savage show their artistic skills including a wonderful sense of drama. Take the example of Carter's overview of the city looking south-east. The activity in the foreground sweeps back to the grandeur of the mountains with the whole city laid out in between, in a vast panorama. Here is clarity and contrast, from in front of your nose to infinity, reminiscent of such later greats as Ansel Adams and Minor White.

The photographs included in this pictorial indicate that Salt Lake was well photographed by experts at their craft.

**Sources**

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Bancroft, Hubert Howe. History of Utah, 1540-1886. San Francisco

C.W. Carter, "SALT LAKE CITY FROM ... LOOKING SOUTH-EAST." An overview of the city with the Wasatch Mountains in the distance. The Beehive House and the full length of the Lion House are visible at top center.
On June 10, 1991, Florence Thomas passed away at the age of 85. An outstanding artist, Miss Thomas began developing her sculpting talents while working in her father's ornamental plaster-casting and cast-stone firm.

After high school she spent four years as an architectural sculpture apprentice and studied art at the Art Institute of Chicago. She was awarded the Edward L. Ryerson Fellowship and went on to study in Europe for two more years.

Miss Thomas designed and sculpted the original models for the newel posts at Timberline Lodge on Oregon’s Mt. Hood. Wood carvers on that 1930s WPA project then used her models to create the finished animal figures we can see and touch today. The carving of the large panther hanging above the main lodge’s main doors bears the signature F. Thomas.

Although Florence Thomas was a talented Artist in many mediums, View-Master enthusiasts will always remember her best for the wonderful clay figure characters she created for so many outstanding fairy tale reels. In 1949, she described the process she followed in creating her clay figures.

First she sketched the figures to be used and the backgrounds on cardboard, then she went to work on the figures themselves. Adult human figures were about six inches tall. After the figures had been dried for a while they were painted with oil colors and nail polish. The same style figures were used in all seven scenes, but different figures were made for each
The third Little Pig begins his house of bricks in a scene from The Three Little pigs. Miss Thomas, who found pigs easier to sculpt than humans, here combined story-book visual simplicity with considerable depth. © 1991 View-Master Ideal Group Inc. A subsidiary of Tyco Toys Inc.

A Scene from Little Red Riding Hood. The figures and sets created by Florence Thomas represented a return to a quality of stereoscopic miniature staging not seen since the days of the best French tinted tissues about 85 years earlier. © 1991 View-Master Ideal Group Inc. A subsidiary of Tyco Toys Inc.

Florence Thomas with a set from Snow White. Titled "Fairy Tales Come to Life", the scene was used in two promotional Sawyer's Plant Tour reels in the 1950s. It appeared again on the View-Master Commemorative reel in the packet produced for the Portland NSA Convention in 1989. © 1991 View-Master Ideal Group Inc. A subsidiary of Tyco Toys Inc.

For settings and props all sorts of materials were used - moss, paper, asbestos, soil, stones, hair, etc. She obtained a realistic lake with a piece of plexiglass and ripples of transparent household cement.

Once launched on a story, Miss Thomas figured production on a basis of seven working days for each scene. Sometimes it took less. The scenes for the story The Three Little Pigs took only three and a half days each. She found pigs easier to sculpt than humans.

Florence Thomas worked at View-Master from 1946 to 1971. The following is a chronological listing of her work during that time.

1946 The Ugly Duckling
1947 Little Black Sambo
      The Three Little Pigs
      The Christmas Story
1948 The Easter Story
1949 The Little Red Hen
      Mother Goose Rhymes
1950 Rudolph the Red-Nosed Reindeer
      Jack and the Beanstalk
1951 Aladdin and the Wonderful Lamp
      The Magic Carpet
      Hansel and Gretel
      The Night Before Christmas
1952 Alice in Wonderland
      Sleeping Beauty
1953 Cinderella
      The Pied Piper of Hamelin
      Thumbelina
1954 Tom Corbett, Space Cadet
1955 Snow White and the Seven Dwarfs
      Rumplestiltskin
1956 A Christmas Carol
1957 The Wizard of Oz
      The Steadfast Tin Soldier
      The Little Mermaid
      The Emperor's New Clothes
1958 Aesop's Fables
1959 Mother Goose Rhymes (another edition)
1960 The Shoemaker and the Elves
1961 ABC Circus
1962 1-2-3 Farm
1963 The Sword in the Stone
1965 Noah's Ark
1967 Bible Heroes
1968 Puss in Boots
1970 Moses and the Plagues of Egypt
1971 Moses and the Ten Commandments
It is sad to know that most of the wonderful work done by Miss Thomas has been destroyed over the years. However, a part of her work still remains today. There is a set of several wolves that she created during her tenure with View-master on display in the Creative Department.

Florence Thomas may be gone, but her memory will live on by continuing to enchant View-Master enthusiasts across the globe with the delightful sculptures she so lovingly created. For this we thank her.

(Special thanks to John Lawler and David Hitchcock for their help in gathering information for this article.)

**V-M Folio?**

Some people have expressed interest in a circulating folio dedicated to current amateur View-Master reels. Anyone interested in actively participating is invited to contact Mary Ann Sell, 3752 Broadway Drive, Cincinnati, OH 45208. If there is enough interest, we will confer with the Stereoscopic Society of America about establishing such a folio. Send only your name and ideas at this time—no reels please.

**Another View-Master Club!**

A new organization devoted to collectors of View-Master images and equipment and users of View-Master cameras has appeared in Germany. The View-Master Club of Germany is based in Nuremberg and publishes a German language newsletter, 3D-Aktiv (3-D Active). Membership information is available by writing to View-Master Club Deutschland, c/o Werner Stähle, Rahm 27, W-8500 Nürnberg 20.

Florence Thomas created this relief sculpture of images from Alice in wonderland as part of another WPA art project in the early 1930s for the Multnomah County Library in Portland. It still hangs in the children's room of the Central Branch, where those who take the time can find many of their favorite characters from the story, despite the rather stern looking Alice in the center. (Stereo by John Dennis.)
Unquestionably, the most well-known individual animal stereographed at the London Zoo in the mid-nineteenth century by either Frank Haes or Frederick York was the African elephant Jumbo. Indeed, with the possible exception of Smokey Bear, no other single zoo animal in history has enjoyed anything approaching the tremendous popular adulation accorded to this renowned pachyderm throughout his long years at the London Zoo and subsequent brief career with Barnum.

Contrary to popular belief, Jumbo is not the largest elephant on record. Two bull elephants shot in Angola since the end of the Second World War stood well over a foot taller than Jumbo. One of these, the so-called Fenkovi elephant, is now displayed in the rotunda of the Smithsonian's Museum of Natural History in Washington, D.C. But in terms of captive elephants, few have even approached Jumbo's estimated 11' 3" stature.

Today, his name has become synonymous with all that is of monumental proportions, from "jumbo" jets to oversized olives. This wasn't always the case. When Jumbo arrived at the London Zoo in 1865, he stood only about five feet tall and was one sick little elephant!

Born in the wilds of Abyssinia and captured there by Arabs, the infant Jumbo had been acquired by Bavarian animal collector Johann Schmidt and eventually shipped to the famed Jardin des Plantes zoo in Paris, where he arrived in October of 1863. Shortly thereafter, the Jardin des Plantes found itself in the market for a new rhinoceros. Meanwhile, across the channel, the London Zoo was anxious to add to its herd of elephants (all Indian) and, as luck would have it, had just obtained three young rhinos. A trade was quickly consummated. Jumbo would go to England.

He wasn't Jumbo just yet, of course. That name would be coined on his arrival in London and evidently derives from the "mumbo-jumbo" village priests of West Africa.

Crated travel is hard on wild animals but the zoo officials in London were nonetheless dismayed to discover that their new charge was both malnourished and gravely ill. It took several weeks of painstaking care to nurse Jumbo back to vibrant health, an initially shared task that soon was entrusted to Matthew Scott, one of the junior keepers. Between Scott and the elephant there developed a bond of mutual trust and affection that would last until the latter's death.

As the first African elephant exhibited in England in modern times, Jumbo was bound to attract a great deal of public attention. Among his earliest admirers was Frank Haes, who was then in the process of taking his second series of zoo stereographs. Haes recounted his impressions in an address before the North London Photographic Assn. on February 7, 1866:

Soon after his arrival, and improvement in condition, I attended to photograph him. He is an amusing fellow, and I saw him tease the old hippopotamus in grand style. He kept striking Obasch (sic) with his trunk on his mouth, and of course, enraged him terribly. The hippopotamus rushed at the rails open-mouthed, trying to catch Jumbo's trunk, in which he was frustrated by the adroitness of the animal; and when the elephant was satisfied with irritating him, watching his opportunity, he turned round, and with his hind foot flung a lot of gravel into the hippopotamus's open jaws.

It seems that playfulness is an inescapable part of a baby elephant's personality. What Obaysch thought is of course another matter. It is recorded, however, that Obaysch once escaped and could only be lured back into his enclosure by tricking him into charging a keeper for whom the hippo had a particular loathing. That keeper was Matthew Scott, and it may be that it was the faint aroma of elephant rather than the keeper's personality that Obaysch found so objectionable.

Haes' stereograph of the young Jumbo appears as No. 32 of his second series, but is somewhat lacking in proper decorum as the tiny elephant seems to have just deposited a rather large pile of excrement!
But if Jumbo was not always the most elegant of photographic subjects, the British people couldn’t have cared less. Over the years, as Jumbo increased in size, so too he grew in popularity. He learned to carry a kind of open saddle (or “howdah”) and almost any day he could be seen plodding slowly along the gravel paths of Regent’s Park, with Scott and half a dozen or more children perched on his back. Youngsters were encouraged to approach him fearlessly with buns and other treats, a practice that would turn any modern zoo director gray overnight. In short, Jumbo was thoroughly spoiled.

When Frederick York produced his mammoth series of approximately 200 stereographs of the London Zoo around 1869-70, it was only natural that he should include Jumbo, and it is not surprising that the elephant appears in at least nine different images; Nos. 56, 113, 181, 183, 186, and two versions each of Nos. 55 and 182. If Jumbo does not create quite the impression one might expect, it should be remembered that he was not yet full-grown, lacking perhaps 2-3 feet of his eventual growth.

"The Young African Elephant (Elephas Africanus)" No. 32, Second Series, By Frank Haes, 1865. The infant Jumbo, stereographed shortly after his arrival at the London Zoo from the Jardin des Plantes in Paris. Haes left a detailed account of his zoo stereography in lectures delivered before the London Photographic Society in January 1865 and the North London Photographic Association in February 1866. The view is extremely rare, with only a poor copy available for publication.

"African Elephant, Elephas Africanus" No. 55 by Frederick York. York’s series of approximately 200 “Animals in the Gardens of the Zoological Society of London” is the largest known grouping of 19th century zoo stereographs. Note the presence of keeper Matthew Scott in nearly all of the views.
African Elephant, Elephas Africanus. Another version of York's No. 55. One often encounters two or more variations of a single number in the York series. The first approximately 100 cards of the series are believed to have been produced in late 1868 or early 1869, at a time when Jumbo was thought to be about eight years old.

It is also perhaps rather odd that Jumbo's name does not appear in the caption of even one of these stereographs, but neither Haes nor York was in the habit of identifying individual animals, and the elephant wasn't yet the institution he was to become.

Present with Jumbo in each of the York views is the inevitable Scott. Another interesting feature is the female African elephant Alice. Acquired by the zoo shortly after Jumbo, she was to figure prominently in the story later on. She is shown with Jumbo in views 182 and 183, and is featured by herself in York's No. 180.

In addition to the York mounts themselves, several of these views, particularly Nos. 56 and 182, may be encountered as copies, with the former sometimes labeled erroneously as an "Indian Elephant," a bit of supreme irony for the creature that was rapidly becoming the largest and most famous zoo animal in the world.

By the late 1870s, Jumbo had become, in the words of Harper's Weekly, something of a "national pet." But if the zoo authorities were pleased with their elephant's enhanced reputation, it was a pleasure tempered with some concern. As Jumbo approached maturity, he showed increasing signs of violence, damaging the elephant house on more than one occasion. It was also feared that he would fall victim to "musth," a periodic glandular inflammation that renders adult male elephants extremely irritable. If Jumbo should be stricken during one of his daily jaunts, the possibilities were just too frightful to contemplate.

Another concern was Scott: since he was the only one who could effectively control the big elephant, his health too was at a premium — and the keeper was known to be fond of the bottle.

While the authorities were searching for a graceful way out of their predicament, fate, in the form of Phineas Taylor Barnum, was about to intervene. It had been many years since Barnum had dazzled the world with the likes of Jenny Lind and Tom Thumb, and the irrepressible showman had fallen on hard times. Even his recent merger with James Bailey's "London Circus" had not fully restored the success he craved. For that he would need something truly enormous to draw the crowds.

When Barnum's London agent broached the subject of purchasing Jumbo to the secretary of the Zoological Society, he appears to have met with some initial resistance. Nevertheless, Barnum, who was nothing if not persistent, promptly cabled an offer and the deed was done.

But Jumbo wasn't in America yet. And if some folks had their way, he never would be. The public outcry occasioned by the sale went well beyond anything any sane man could reasonably have anticipated. While the London newspapers thundered daily against the transaction, an injunction was filed in chancery court, and even the Queen and Prince of Wales ultimately became involved. Ridiculous sums were offered to buy Barnum off. Yet through it all, the old impresario remained calm, thriving on the publicity.

If Barnum was something of an irresistible force, Jumbo was about to become the proverbial immovable object. After an initial attempt to load the elephant into a massive, wheeled wooden crate had gone awry on February 11, 1882, it was decided to walk him the six miles to the St. Katherine's Docks on the Thames and load him in what was hoped would be more conducive surroundings. But the following morning, when Jumbo reached the zoo's outer gate, he balked and, despite impassioned coaxing, finally lay down and refused to budge. The whole thing seems to have been choreographed by Scott, who had come to look upon the giant pachyderm as something of a personal possession.
The press loved it. What more proof could anyone need that Jumbo was a true British patriot, indignantly resisting exploitation at the hands of a mere foreigner? Furthermore, the trumpeting of the other elephants convinced the reporters that Jumbo was being dragged away from the tender companionship of his mate—a role in which Alice was now fancifully cast. In fact, the two elephants had never even shared the same enclosure.

Barnum was ecstatic—more free publicity! But he wasn't the only one reaping a bonanza. Following announcement of the sale, attendance at the zoo had skyrocketed as hordes of Britons came for one last look at their beloved elephant. Scott too was profiting handsomely, from the tips and gifts of generous well-wishers.

But it couldn't last. Eventually zoo director Bartlett saw through Scott's charade, the huge wheeled crate put in another appearance, and finally, on March 25th, the steamship Assyrian Monarch sailed for New York with its precious cargo tucked securely away in a specially reinforced hold.

Reassured by the continued presence of Scott (now in Barnum's employ), Jumbo took the crossing well. When the Assyrian Monarch dropped anchor in New York harbor on Easter Sunday, Barnum quickly scurried aboard to check on his prize. A teetotaler himself, Barnum was aghast to learn one reason for Scott's rapport with Jumbo: apparently the two were old drinking buddies! Barnum vowed to put a stop to the practice but this was one argument he was not destined to win. Scott would handle the elephant his way or not at all.

Nevertheless, Barnum had scored another smashing triumph. Jumbo was wheeled up Broadway amid cheering crowds and appropriate fanfare. The "Greatest Show on Earth" opened its 1882 season to sold-out performances in Madison Square Garden. Even before the circus left for its annual swing through the northeastern United States and Canada, Barnum had recouped his entire outlay on Jumbo, transportation costs and all.

For three years, Jumbo toured with the circus, riding in his own ornate "palace Car"—a specially designed boxcar with huge double doors and a depressed center for easy access. Scott lived in a small compartment at the head of the car and, according to Barnum, often at night the elephant would thrust his trunk through the connecting doorway and playfully tug the covers from his sleeping friend.

Then Tragedy struck. The circus had just finished its evening performance in St. Thomas, Ontario, on September 15, 1885. Jumbo and Tom Thumb, the tiny "clown" elephant who appeared with him in the show's finale, were being led back to their cars by Scott. The circus train was parked on a siding next to the main through-track while the tents had been set up in an open field below a steep embankment on the opposite side of the track.

Scott was leading his charges down the track when he heard a not too distant whistle. Realizing that he would be unable to reach the end of the circus train in time, and unable to coerce the panicky elephants down the embankment, he managed to turn them around in a desperate bid to reach a break in the circus train where the cars had been uncoupled.

The engineer of the approaching freight, sighting the elephants, whistled for the brakes, threw the locomotive into reverse, and jumped clear. The clown elephant, unable to keep up with his companions, was struck from the rear and pitched down the embankment, to emerge with a broken leg but otherwise little the worse for wear.

By now Scott had reached the opening and was trying to guide Jumbo through it. But an elephant with a full head of steam has about
aggressively and unprovokedly charged an inoffensive train. Almost as unbelievable, but nonetheless true, the railroad in question was the Grand Trunk!

In later years, Barnum liked to pretend that the idea of having renowned scientist Henry Ward come out to preserve Jumbo's remains was a brilliant improvisation, but in truth tentative arrangements had been made almost as soon as the showman acquired the elephant. When Ward and his assistants arrived on the scene two days later, Jumbo

the turning radius of a cruise ship, and Jumbo overshot the opening by two car lengths before he could bring his huge bulk to a halt. The train slammed into him from behind, throwing him to his knees. The locomotive, its progress effectively checked, toppled from the rails.

But Jumbo had been shoved partway under the circus train, crushing his skull on the undercarriage of a boxcar. He was still conscious when a tearful Scott crawled under the car to comfort his dying friend.

If the actual circumstances of Jumbo's death were bizarre enough, the stories that began to circulate soon after were downright ridiculous: Barnum asserting that Jumbo had deliberately sacrificed himself to save the clown elephant, while the railroad, which was being sued by Barnum, indignantly claimed that Jumbo had

"Whit Monday at the Zoo - The Elephants" No. 183 by E. York. Jumbo stands at left by the "mounting steps" with the female Alice (later billed as Jumbo's "widow") to the right.

"African Elephant (male), Elephas Africanus" No. 181 by F. York. Such "elephant rides" greatly contributed to Jumbo's growing popularity among Londoners. Probably taken about two or three years after the earlier York views.
was already a bit gamy. The hide and skeleton (weighing nearly two tons in all) were stripped of flesh and taken to Rochester for cleaning and mounting. Barnum would have two “Jumbos” for the 1886 season.

Just how he planned to use them was soon evident. While Barnum hastily acquired Alice, Jumbo’s alleged “widow,” from the London Zoo, the other elephants were being trained to wave black-bordered sheets across their eyes. When the circus opened, the skeleton and mounted hide were wheeled out, followed by the “widow and her grieving companions.” This macabre performance went on for two years, until Alice died in a fire at the circus winter quarters in Bridgeport, Connecticut.

In a flamboyant gesture, Barnum donated Jumbo’s skeleton to the American Museum of Natural History in New York and the mounted hide to Tufts University — then promptly borrowed them back for a couple of European tours. The skeleton remains at the American Museum to this day. Sadly, the mounted hide was destroyed in a fire in 1975.

Matthew Scott never recovered from the loss of his huge alter ego.

“Jumbo,” an autotype cabinet card by E. Bierstadt of New York. Despite the caption, this photograph was not taken in America but along the path adjacent to the elephant house at the London Zoo in early 1882, about the time of the sale to Barnum. (Compare the fence in the background with that visible at the bottom of York’s No. 181.) Almost no photographs of Jumbo’s American career are known to exist.

He is said to have haunted the Tufts campus for years, lingering by the immense figure and talking to it. Eventually he returned to England, a penniless and pathetic figure, as much a victim of that tragic night in St. Thomas as his huge companion had been.

Photographs of Jumbo’s American career are extremely rare — perhaps deliberately so. Judging from Barnum’s advertising, Jumbo owed only about half of his legendary stature to Mother Nature and the other half to what could politely be termed creative showmanship. And just as a true measurement (which Barnum refused to allow) would underline the incredible exaggeration of posters showing Jumbo carrying forty or more people on his back or standing stolidly while a pair of horses drew a four-wheeled carriage beneath his huge frame, so too photographs would indicate that the advertising was just a bit overblown.

Nevertheless, it is surprising that more local photographers didn’t manage to capture Jumbo on film.

But, whether or not stereographs of Jumbo’s days with Barnum remain to be found, we can at least be thankful that Haes and York were able to document a portion of the amazing career of this unique animal, in Barnum’s words, a true “colossus of his kind.”

The author wishes to thank John C. Edwards of London, England for his generous assistance in the development of this article.

[Another interesting examination of Jumbo’s life appeared on page 22 of the March, 1991 issue of Natural History, the magazine of the American Museum of Natural History.

– Ed.]
Rich Stereo Feast Awaits Ready Lenses

When a Stereoscopic Society folio arrives, one can anticipate an evening of entertainment looking at stereo views taken by Society members whose homes are scattered around the country and whose travels circle the globe. It can be a wonderful travelogue as we go through the pictures one by one and add comments to the folio envelopes. But then comes the moment of truth.

Before sending the folio downstream to the next member on the route list, a new entry must be added...one of our own stereo views that can respectfully take its place among the impressive views we have just studied. Often, this is no easy task. Where does one find stereo subjects worth taking and worthy of showing to others?

Pictures Are Everywhere

We only have to study the range of subject matter represented in the Society folios to see that there are virtually no limits to the sources of worthy pictures. Some photographers are cute and some are bizarre. Some show grand scenery and others subjects of historical significance. But the one thing that becomes obvious is that there is something worth photographing in nearly every time and place. The skill of the photographer in uncovering these, of course, plays no small role in the process. But saying, "there is nothing to photograph" is seldom if ever true. And stereo photography makes many subjects much more effective than they could ever be in flat photography.

Good Notes Needed

In presenting a stereograph, there should be adequate information so that the viewer can fully appreciate what he or she is seeing. I have heard many times statements by some photographers that a picture should stand on its own merits and need no explanation. That is a very nice thought but it just isn’t so. A large body of common knowledge is presumed in such situations, without which the meaning or impact of the picture on the viewer will likely be lost. The greatest work of literature would mean less than junk mail if handed to me written in Sanskrit. The fault is mine, of course, but that is the reality. Full notes should be expected with each stereo view submitted and we should not have to ask, “But, where is it?” when looking at a breathtaking landscape.

Stereograph What You Know Best

I love to see family or personal pictures. I do not mean the chopped off heads and fuzzy focus of the novice snapshotter. An experienced photographer let loose among her family and familiar surroundings will produce interesting results, including vote-worthy ones if entered in competition. To pass these off as “family records” may miss the point entirely.

Work and hobbies are a rich source for stereographers looking for subject matter to try their cameras on. Such stereographs from the past have become prized collector items to later generations because they record the real world. I am a bit pessimistic that today’s color materials will survive the assault of time as well as the old albumen prints of the last century, but that is another story.

Using the Stereo Effect.

Some of the most memorable stereographs I have seen have been close-ups or tabletops taken at home under controlled conditions. Using a very small aperture for great depth of field along with a time exposure, a collection of objects can be used to produce an intriguing stereograph that inspires extended study by all who get to see it. The use of the stereo effect in such cases is fundamental, but everything in the picture must be in needle sharp focus. The objects used can be nearly any items that have some interest in their own right and, as often as not, the more of them the merrier.

A busy picture in stereo can keep one studying it for a long time. The same technique on a single object such as a flower or something of similar size is equally effective if the subject is well chosen and properly positioned.

Exaggerations of the stereo effect have been and can be used to good advantage to produce feelings ranging from humor to awe. This sort of thing can be done at home. There is always something to photograph, even without venturing into the back yard where another world awaits the patient stereographer.

Experiments with light painting have been appearing in the Society folios in recent times. The camera shutter is opened in the dark with the camera on a tripod. Various light sources, point or light bar or whatever, are manipulated to paint a picture on the film. The possibilities are endless and some very interesting and unusual results have been shown, encouraging other Society members to try their own experiments.

Artwork

Stereographing artwork so that justice is done to the subject is another challenge worthy of the serious photographer. I find that stereo photography does an especially good job on sculpture, and even paintings look better (and more real) than in a flat picture, although the subject is flat. For sculpture in the round, at least three views should be made from varying vantage points. Take your stereo camera to the museum, and the museum comes home with you. There are indeed good pictures to be had everywhere.

Supplies

Audrey Kruse has taken over as Supplies Secretary for the Society from Judy Proffitt, who is busy (continued on page 35)
It's Pronounced "Skól-o-gram"

The next time you see a large and impressive autostereoscopic transparency advertising a product or displaying a computer generated scientific image, don't assume that it's just a particularly well made lenticular display. You could be looking at a PHScologram™, a three-dimensional image display system based on a concept older than that of lenticular lens screens, and technically a type of parallax panoramagram.

If a close look at the surface of the back-lighted display reveals a fine screen of vertical black lines, you are seeing the "barrier strip" side of a phscologram. These lines are generated on film by the same computerized scanner system which "slices" the (usually 13) different views of an image into vertical strips 1/400 of an inch wide and interleaves them for later reproduction on large sheets of color transparency film. When the final image film and the grill of barrier strips are mounted in register on two sides of a sheet of plastic, a 3-D image can be seen from a relatively wide area in front of the display thanks to the multiple angles of view provided by the 13 images divided into thousands of strips.

Similar techniques are used for large lenticular prints, but the use of barrier strips eliminates any distortions or interference caused by looking through a sheet of lens material. There is nothing but clear plastic between your eyes and the image sections positioned between the barrier strips, which select with perfect angular precision (and no ghosting or fuzzy edges) the view intended for each eye.

Phscologram images can easily seem to float well into the room or far back into the display with little of the jumpiness or poor definition resulting when very deep 3-D
effects are attempted with lenticular screens. High or low contrast, dark or bright image elements can look real enough for even the most jaded 3-D enthusiast to try touching them. With the more dramatic phscolograms, like the computer generated model of a brightly colored AIDS virus, the truly astounding effect has prompted several readers to ask where these things have been, why more haven’t been seen, and what Stereo World can explain about them.

The first phscoligrams were created in 1983 when sculptor and neon artist Ellen Sandor founded the (Art)® Laboratory at the Illinois Institute of Technology in Chicago. (Art)®, or “Art to the Nth power” is described as a collaborative group dedicated to the fusion of artistic expression and scientific visualization. Multiple exposures through a room-sized camera produced the early phscoligrams photographically. By 1987, the group of artists, computer technicians, mathematicians, and scientists had incorporated computer generated images and invented the Stealth Negative PHSCologram™, a process in which images go directly from a computer to a scanner, eliminating the use of any camera at all for many phscolograms. The computer slices and interleaves the 13 images, storing them on tape. This is fed into a scanner which produces four color separation films the size of the final display (up to 31/2 x 5 feet, so far). These are then contact printed onto Cibachrome print film for mounting behind the barrier strips and plastic panel.

The term PHSCologram was derived from the first letters of “photography”, “holography”, “sculpture”, and “computer graphics”. It attempts to convey the highly collaborative and cross-disciplinary group effort involved in producing these unique 3-D works.

The phscolograms themselves have been featured in several science museum shows, galleries, and touring exhibits, and have been favorites at SIGGRAPH, the state-of-the-art (or more) international computer graphics conference where 3-D has come to be an expected element. Most of them, whether in groups as parts of large sculptural arrays or as single displays, involve a genuine scientific image combined in some stereo relationship with a second image or theme which may be scientific or something very different. The effect is to generate more meaning (and more questions) than either image would alone – the sort of juxtaposition artists have been doing since cave painting days.

The difference is that phscolograms present, in dramatic 3-D, images which often otherwise exist only as collections of data from medical scanners, electron microscopes, computer design aerospace tests, or computer imaged mathematical concepts. Combined with images of people and objects, both dangerous and otherwise, from the “real” world, these unique stereograms extend scientific images beyond their high tech framework in more ways than the purely visual.

AIDS Virus, Third Edition is a 1987 phscologram with a computer visualization of an AIDS virus floating in front of a CATSCAN of a person named Messiah, who died of AIDS. This compelling image has been reproduced (flat) in several publications.

Chemical Terror, 1991, floats a 3-D image of a poison gas molecule in front of a historic black and white photo of a death-camp cremation oven.

Other phscolograms concentrate on a single subject, as with studies of pressure distribution over computer models of air and space craft in wind tunnels. MRI Brain III shows several layers of a Magnetic Resonance Image of a woman with a brain tumor, including the skin surface, brain tissue, and the tumor.

Phscolograms made up of multiple photographs rather than computer screen or video images have not been abandoned. A new 9-camera array using synchronized Hasselblads has been used to create an exhibit for the Chicago Museum of Science and Industry involving images of children of different races showing a variety of emotions. Other photographic images will be sliced and interleaved into phscolograms made for advertising. Some of the hoped for applications are menu signs for fast food restaurants, vending machines, in-store displays, pinball machines, airport displays, trade show exhibits, and billboards.

(Art)® publishes a quarterly newsletter called (News)® covering their current work and exhibits. Contact (Art)® Laboratory, 319 Wishnick Hall, 3255 S. Dearborn, Chicago, IL 60616.
Stereo World
Triggers Dot Avalanche

When the folks at Pentica Systems Inc. (a firm specializing in "debugging" and error tracing equipment for computerized electronic circuitry) saw Dan Dyckman's single frame random dot stereos in the May/June '90 Stereo World, they were inspired. Within a few months, they had run a full page ad featuring the random dot image shown here in two industry publications with a combined circulation of 150,000.

The text of the ad explains that their equipment detects patterns as elusive as the number hidden in the dots. Some hints for freeviewing are included, and readers are invited to send in the number revealed in 3-D for a chance at a "special prize." The response quickly grew from surprising to overwhelming. Within the first two weeks, over 210 people had fused the correct answer. By this August, the total from U.S. and British publications was over 3,000!

Realizing that something special was happening, Pentica got permission to reprint the original article as part of the prize package, which they decided to send every new freeviewer responding to the ad. Best of all, the first few hundred people were also sent a sample copy of Stereo World, which has resulted in noticeable added growth in NSA membership.

The high percentage of people responding to the ad would be impressive in any case, but these people had to know or learn freeviewing first - a challenge they seem to have accepted eagerly, and a vision skill which still eludes many active collectors and producers of stereographs in the NSA. Single frame random dot stereos, unlike left/right pairs, can only be fused through freeviewing techniques. This adds to their appeal both among those who have been freeviewing for years and those who's first successful attempt at it turned one of those flat rectangles into a window full of surprises. (A lorgnette viewer or the adjustable-mirror "nu vu" stereoscope will fuse single frame images, but the lack of reference points or boarders makes their use as much a task as learning to freeview in the first place.)

Now, through a related company called N.E. Thing Enterprises, the type of 3-D images which stirred the enthusiastic response to the original Pentica ad are being

Pentica Loves Puzzles!
marketed as a new product line of their own. One of the advantages of single frame random dot stereos over paired images is the fact that there is no limit at all to the size of the image. Since it depends on integrated left/right elements appearing at separations set for easy freeviewing fusion, more image can be added to either side of the initial "pair" for as far as the page or sheet allows. The image must of course be made up of fusible patterns, which leaves out photographs unless very small ones are paired up as part of a pattern themselves. Unlike anaglyphs, there is no ghosting or pale image or color limitation. Once you've fused any part of the image, you've got the whole thing.

N.E. Thing has used these features to maximum advantage in a just published line of posters and a 1992 calendar. The posters come with some basic instructions in freeviewing and a practice image, but the real teaching effort is embedded in poster #1, Training Wheels. The 24 x 30 inch poster has six different visual aids to freeviewing plus a large multicolored field of repeating shapes and patterns which create their own curving volume of space when any adjacent pair is fused. Only one area is composed of actual random dots, but the principle and the viewing techniques are the same.

Poster #2, The Third Eye, incorporates the guiding fusion spots into the random dot field where they become an eerie part of the fused image. Poster #3, The World's Hardest Maze, looks like a woven riot of color until the "start here" arrows are fused. Then it becomes a 3-D riot of color and planes with a tiny path twisting and diving through them, over and under itself, like a visual Chinese puzzle. The feeling is one of being lost in a universe of enlarged video pixels after their experience in a paper shredder. Only the stereo effect reveals the path, which consists of the same multi-color rectangles as the background and seems to constantly double back on itself. Following it to the goal is a true 3-D challenge, but just seeing how fast you can race your eyes around on it without falling off or losing fusion is fun too.

The posters are $15 each or $35 a set, postpaid, from N.E. Thing Enterprises, PO Box 1827, Cambridge, MA 02139. Besides helping spread interest in 3-D in general, N.E. Thing is generating an unexpected commercial market for the most interactive, organic, and personally satisfying type of viewing—the subtle control of some tiny eye muscles called freeviewing. Once their customers learn the technique, they will be ready to fuse and enjoy stereo images in a wider range of pair formats.

N.E. Thing has also come up with a NAME which may catch on for all such images designed for freeviewing. Their term for a single image (or more accurately a single frame) random dot stereogram is a "STARE-E-O."

OMNI Dots

The November, '91 issue of OMNI magazine is scheduled to include one of NSA member Dan Dyckman's single frame random dot stereos on the "Games" page. The dots roll on...

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Added Dimension Adds A Brewster

This is at least design number four in James Curtin's quest for the most marketable system of folding stereo viewers for printed pairs. The latest version from his Added Dimension Company uses the same ultra flat plastic lenses as the mailer viewer seen in Stereo World July/Aug. '89, page 21. But when unfolded, this new viewer becomes a more stable box, with a space between the septum and the back where the small format (13.5 x 6 cm) views can slide in from either side.

The full septum, which extends nearly to the surface of the view, holds the view upright but also can create a shadow on one image depending on the lighting conditions. The "roof" effect of the left side of the viewer can also contribute to illumination differences. But the new design does provide something of a breakthrough in low cost folding stereoscopes. Even the most inept user with no concept of how to view a stereo pair will succeed, since no positioning of lenses or proper folding of a wobbly image flap or card is required. As Sir David Brewster proved so many years ago, nearly anyone can slide a view into the end of a box and see stereo.

The Added Dimension also markets folding viewers for single image, book, or catalog applications from Box 15325, Clearwater, FL 34629.
Call Ghostingbuster

A recent issue of the comic book *The Real Ghostbusters* includes a ten page anaglyphic 3-D section converted by Bob Staake of Apartment 3-D. The story, in which the famous team tries to evict a demon from a rollercoaster, is the first of the series in 3-D, and may prompt Apartment 3-D to do more comic book work according to Staake.

Very rarely is anaglyphic material done in the same comic with regular four-color illustration. To save on costs, the publisher (NOW Comics) had the anaglyphic section printed using the cyan and magenta from the four-color process inks used in the rest of the comic. Since these colors are so far from those of the filters in regular anaglyphic glasses, severe ghosting could have wiped out the Ghostbusters. Total disaster was avoided by screening both colors, reducing their intensity and contrast to the point where ghosting in the blue is no worse than average. Unfortunately, the magenta ink allows some rarely seen ghosting in the red as well, and the combined screened colors produce a more pale final image than most current 3-D comics.

Bob Staake’s 3-D conversion of the art seems to have been done with a good combination of precision, restraint, and dramatic multiple-plane effect. It certainly deserved its own inks so we could enjoy it.

The comic, including glasses, is available from NOW Comics, 60 Revere Drive, #200, Northbrook, IL 60062 for $2.95 plus 60¢ postage.

Minolta in Depth

NSA member David Burder has scored another first in the effort to expose the mainstream photographic world to some of the finest stereo images being produced today. *Minolta Mirror* is one of those elegant international photography annuals published by major camera companies to exhibit work done with their cameras by leading photographers.

On a 14 page spread in the 1991 issue are 17 color anaglyphs of Burder’s most notable stereographs, including aerial hypers, a fisheye view, Scanning Electron Microscope stereos, a macro action stereo, and his now widely circulated stereos of the fox in the flower, the ducklings, and Susan Pin-sky being kissed by a Swiss cow. The glasses supplied with the issue interfere as little as possible with the image colors, while ghosting is bothersome in only three or four views.

The brief text outlines his wide experience in professional 3-D photography, including work for View-Master, and his use of paired Minoltas on a bar followed by the splicing of two Minolta 500s into a “Twinolta” for standard stereography assignments. The article’s title page is a macro stereo of hoverflies inside a blossom taken with a Burder-designed dual aperture lens rig which allows separations of 2.5 to 10mm. Diagrams illustrate how mirrors guide the images from the single Minolta (naturally) lens past a septum to 120 roll film.

The 1991 issue of *Minolta Mirror* is available for $6.95 from Minolta Corp., 101 Williams Drive, Ramsey, NJ 07446, and from some Minolta dealers, until December 31.

This column depends on readers for information. (We don’t know everything!) Send information or questions to David Starkman, P.O. Box 2368, Culver City, CA 90231.
3-D Foto World Competition

In celebration of its tenth anniversary as a mail order source of stereo publications and equipment, 3-D FOTO WORLD has announced a world wide competition for "the best artistic stereo-photograph." The winner will receive a unique 3-D trophy donated by Arthur G. Haisch of 3-D FOTO WORLD. Detailed information on the competition, conditions for participation, and entry forms are available by mail with self-addressed envelope and a postal reply coupon. Contact 3-D FOTO WORLD, Fach, CH-4020 Basel, Switzerland. FAX 0041-61-312-49-23.

3-D Museum Celebrates Official Opening

Two days before the opening of this year's NSA convention in San Antonio, another opening of significance to stereoscopy was underway in Germany. June 19th was the official opening of the "Museum 3.Dimension" in Dinkelsbühl, about 50km southwest of Nuremberg. Organized as a private establishment a few years ago by Gerd Stief, the museum had been functioning in the city tower adjacent to its new home. A number of NSA and ISU members from around the world visited Museum 3.Dimension following the 7th ISU Congress in Germany in June, 1989.

Renovated for the museum by the city of Dinkelsbühl, the old stadtmühle (city mill) now houses the exhibits of stereoscopy, holography, optical illusions, "impossible figures" and other items with more room for guests and artifacts alike. The mayor of the ancient town of carefully maintained and restored buildings gave the official opening speech for the museum's invited guests, followed by a special theatrical performance and party. In its new quarters, and in a town which is itself a tourist destination, Museum 3.Dimension should become an important site for the preservation and public exhibition of both historic and current equipment and material involved in 3-D imaging. A more detailed report on this unique museum will appear in a future issue. The address is Museum 3.Dimension, Nördinger Tor/Stadt-mühle, D-8804 Dinkelsbühl/Romantische Strasse, Germany.

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Announcing the ‘Assignment 3-D’ Stereo

Many readers have requested that we include more examples of the best work of today’s active stereographers in the pages of Stereo World. The general feeling among these members is that a lot of good stereography deserves publication for its own sake, whether or not it illustrates an article or demonstrates a particular device or technique.

The “Stereo World Color Gallery” in the Mar./Apr. 1988 issue scratched only one corner of one layer of the surface of a tremendous body of material waiting to be seen. It also proved to us just how difficult choosing from among a flood of these gems can be. In order to avoid being deluged by stereos of every description, including the inevitable striking scenics and irresistible children, we have decided on an “assignment” format, which will run through the following three issues.

As space allows (and depending on the response) judges will select for publication in each issue the two or three best views submitted by press time. A new assignment category and its final closing date will be announced by the second issue of each category’s 3-issue run. Our hope is that this will be a fair and challenging way to present recent stereographs by people from a wide range of backgrounds and interests using a variety of formats and techniques. Rather than tag images as first, second or third place winners, the idea will be to present as many good stereographs as possible from among those submitted.

Prizes are limited to the worldwide fame and glory resulting from the publication of your work. Anyone and any image in any print or slide format is eligible.

The sort of overlooked “urban detail” which can be found right under our feet. A Portland (“City of Roses”) water main access cover with its traffic-worn features restored by a wider than normal stereo separation. This example of the general idea is by John Dennis, one of the few who will be ineligible for participation in the actual ASSIGNMENT 3-D contests. Camera: Super Richoflex. Light: direct sun. Distance: 5 feet. Separation: about 6”. Exposure: 1/100th, f/16. Film: VP 120. The view circulated in a Stereoscopic Society Print Folio in 1981.

These futuristic looking parking structures at the state of Washington's Sea-Tac Airport provide some interesting geometric shapes and patterns in this example view by Mark Willke, another of the few stereographers who will be ineligible for participation in the actual ASSIGNMENT 3-D contests. Camera: TDC Colorist II. Light: overcast sun. Film: Kodachrome 64. Date: October 24, 1986.
Stereo World

Geography Competition

(Keep in mind that images will be reproduced in black and white.)
Judging will be by Stereo World staff members and other volunteers as needed depending on volume of response.
Include all relevant caption material and technical data as well as your name and address. Each entrant may submit up to 6 images per assignment, whether sent in one package or several.
Any stereographer – amateur, professional or otherwise – is eligible. Stereos which have won Stereoscopic Society or PSA competitions are equally eligible, but please try to send views made within the past eight years. All views will be returned within 6 to 12 weeks, but Stereo World and the NSA assume no responsibility for the safety of photographs. Please include return postage with entries. Submission of an image constitutes permission for its one-use reproduction in Stereo World. All other rights are retained by the photographer.

First Assignment: “Urban Detail”

Entries in the Assignment 3-D “Urban Detail” category need not be close-ups, but must reveal with good stereo impact some specific aspect of an urban environment as opposed to a broad overview, as in a scenic skyline shot or an aerial view. The population or size of the “urban” area is unimportant, and the treatment may be positive, negative, or neutral. Closing date for submissions of “Urban Detail” stereos is March 15, 1992. Winning views in this first category will begin to be published as soon as a good selection is received. (Feel free to suggest categories for future assignments.)

The Society

(Continued from page 27)

enough as O-Print Circuit Secretary. All requests for folio envelopes and other supplies should be directed to Audrey Kruse, 6421 Logan Ave. South, Minneapolis, MN 55423. Anything else will entail some delay. We thank Audrey for taking over this task and also thank Judy for serving so well the past several years. These are the people who make the society work.

Society Membership

Stereo photographers wishing to explore the possibility of joining the Stereoscopic Society should write to Jack E. Cavender, Corresponding Secretary, 1677 Dorsey Ave., Suite C, East Point, GA 30344.
BUY, SELL, OR TRADE IT HERE

For Sale

A COMPLETE ALBUM, "Krieg im Westen" (see SW April '90) with viewer and 100 views for sale or trade. John Norman, Balfortstr. 19, 7800 Freiburg, Germany.

DR. RAINFORTH'S SKIN DISEASE 132 color views and mint stereoscope in original box. See Mar./Apr. SW page 39, cards dated 1910, card list 1914, $125 + UPS, John G. Sugg, 637 Boyd, Pontiac, MI 48342.

JOHN WALDSMITH'S "Stereo Views, An Illustrated History and Price Guide" available signed from the author, $22.95 soft-bound or $34.95 hardbound, add $2.95 postage and handling. John Waldsmith, PO Box 191, Sycamore, OH 44882.

KEYSTONE 600 card World Tour set with viewer, 56 slides missing, 205 duplicate slides, Excellent condition, $20. Compo slide binder with instructions, box: $15, 1952 Realist ad: $5, Art Farmer, #1911961 Center, Salem, Or 97301.

SAWYER'S VIEW-MASTER projectors: brown & red "Standard", $12; black & gray "Junior", Mint- $12; ivory & bur- gundy "Junior", Mint- in original box, $20; Brumberger stereo viewer, Exc.+ $30; same, Exc., $25; Stereo over/under format 35mm theatrical trailer (preview) for "Metalstorm", Exc.+ $25; Realist ST-41 f3.5 camera, Exc., $100; new cardboard Realist-format slide folders for use over aluminum masks, 50 for $3.75, 100 for $7; Kodak PK-20 slide processing mailers, can be used for 24-ex. rolls, $3 each. Ertan automatic numbering machine, great condition, $100; new cardboard slide trays for 100 slides: $15. Please add UPS. Mark Willikke, 220 SW 89th Ave., Portland, OR 97225. (503) 207-7593.


SUBSCRIBE to the Antique Souvenir Collectors News - the nationwide marketplace for antique souvenirs of all kinds! Stereo views, photos, pictorial "view" china, more. Send 2 stamps for sample issue. PO Box 562, Great Barrington, MA 01230.

NEW TOSHIBA 3-D VHS-C Camcorder. Lightweight; easy to use. System includes LCD shutter glasses and allows viewing of 3-D TV videos too. Now only $199.5. 3-D Illusions, Box 25231, Los Angeles, CA 90025, (213) 255-1751.

CENTRAL PACIFIC RAILROAD stereographs (also Union Pacific): Alfred A. Hart, C.E. Watkins, A.J. Reilly, Anthony, Dungan & others. Dr. James Winter, 15145 Muthol- lane Drive, Los Angeles, CA 90077, (818) 784-0619, Fax (818) 784-1039.


WANTED

COLORADO TRAIN stereo views, cabinet, and large paper. Specialties: locomotives, also stage coaches, freight wagons, street scenes, towns, occupational and expeditions. Top prices paid for glass negatives. David S. Digerness, 4953 Perry St., Denver, CO 80212-2630.

CORTÉ-SCOPE sets and singles, especially would like to hear from collectors with sets not listed in my book. John Wald- smith, PO Box 191, Sycamore, OH 44882.

FLORIDA STEREOS of historical value, especially Tallahassee, Tampa and Gainesville. Price and describe or send on approval, highest prices paid for pre-1890 views. No St. Augustine. Hendriksen, PO Box 21153, Kennedy Space Center, FL 32815.

HELP with exhibition project. Purchase or copy stereos of Indian prisoners at Fort Marion, St. Augustine, Florida. Need St. Augustine scenes. Purchase or trade for our duplicates of same. Native American Painting Reference Library, Box 32434, Okla. City, OK 73123.


I HAVE NO. 5, a Bird's Eye View of Omaha, Neb., in Heyn's stereo views. Who can send me xeroxes of the others in the series? Richard Orr, 9506 Western Ave., Omaha, Neb. 68132.

KEYSTONE VIEW COMPANY, World War I - 18640 French Gunners adjusting large cannon mounted on railway track, France, series 36-48-100-200-300 if possible. World War I - 18000 Zeppelin Flying over a German town, series 36-48-100-200-300 if possible. Have other World War I views - willing to sell, trade, etc. Send xerox & price or on approval. Charlotte Marifke, 6820 South Juniper Drive, Oak Creek, WI 53154.
WANTED

KILBURN #5229 “The Merry Italians, Centennial”, Keystone #11659 “Reading the War News”, and any stereo or other photos of China in US Chinatowns, Ellis Island, Angel Island. Stereo passengers. Sheeran, PO Box 502051, Miami, FL 33152.

KODASLIDE II Stereo viewer in excellent condition. John Jamison, 3817 Northwestern, Houston, TX 77005, (713) 432-1790.

MUYBRIDGE VIEWS. Top prices paid. Also Michigan and Mining - the 3 Ms. Many views available for trade. Leonard Walle, 49525 W. Seven Mile, Northville, MI 48167. (313) 348-9145.

NEW YORK CITY STEREOS: 1860-1940. Street scenes, buildings, dock-sides, harbor, etc. Also Brooklyn and Green-Wood Cemetery. Top prices paid. Send photocopies and prices to: Jeff Richman, 52 Harriet Lane, Huntingdon, NY 11743.

SHAKER PHOTOS. All formats. Please still looking for Stereo Realist brand. KODASLIDE, MUYBRIDGE, KILBURN. Caroline WarTen~an~al condition. John send Xerox copy with price to: Richard Richman, 52 Harriet Lane, Huntingdon, NY 11743.

TO CAPTURE THE MAGIC OF 3-D ON YOUR HOME TV, you will need a 3-D TV StereoVisor™, and a Model 2001 StereoDriver™. Plug the StereoVisor, power supply and the video out from your VCR into the StereoDriver. Put your 3-D videotape in the VCR, turn down the lights and enjoy fantastic 3-D! Each StereoDriver can be used with four or more pairs of StereoVisors by using stereo mini plug splitters.

MOVIES

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Cat Women of the Moon (1953) (G)

The Zoo (1966) (PG)

Hidden Mutant (1976) (PG)

WESTERN

Outlaw Territory (1953) (G)

ADVENTURE

Rising Sun (1973) (PG)

ADULTS

First Kisses (1972) (R)

Hawaiian Fantasy (1976) (R)

Political Pleasures (1975) (R)

The Stewardsesses (1969) (R)

Criminals (1973) (R)

Sexcollar (1982) (XXX)

Chambermaids (1972) (R)

MISCELLANEOUS

The World of 3D (1989) (G) $49.95

3D Teaser Vol. 1 (PG) $29.95 (Clips from 3D movies)

Bill and Coo (1947) (G) - the all-bird classic “Solidified” $29.95

Sam Space (1954) (G) Animated, 10 minutes, $19.95


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StereoVisor @ $49.95

StereoDriver @ $149.95
October 20 (Ont.)  Photographic Historical Society of Canada Annual Fall Photographic Fair, Luna Ballroom, 30 Gordon Mackay Drive, Toronto, Ontario. Contact Larry Boccioletti, 1248 Jane St., Toronto, Ont. M6M 4X8 Canada. Call 416-243-1439.

October 26 (OR)  Oregon's Focal Point Camera Show, Polk County Fair Grounds, Rickreall, OR (Hwy 99W) Contact Mike Lowery, Focal Point Photography, 211 E. Ellendale, Dallas, OR 97338. Call 503-623-6300 days, 623-9076 eves.

October 26 (CA)  Oxnard Camera Show and Sale, Community Center Complex, 800 Hobson Way, Oxnard, CA. Contact Anton at Bargain Camera Show, Box 5352, Santa Monica, CA 90409. Call 213-396-9463.

October 26-27 (TX)  4th San Antonio Camera Show, 7 Oaks Hotel, 1400 Austin Hwy, San Antonio, TX. Contact Donald Puckett, 1106 Graham Ave. #206, Dallas, TX 75215. Call 214-824-1581.


October 27 (AL)  7th Annual Huntsville Ala. Photo Flea market, Von Braun Civic Center, Huntsville, AL. Contact Malcolm Tarkington, Southerlands photo, 2357 Whitesburg Dr., Huntsville, AL 35801. Call 205-539-9627.

October 27 (IN)  Indianapolis Photorama USA, Indianapolis Armory, 3912 W. Minnesota, Indianapolis, IN Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2242.

October 27 (MI)  The Original Michigan Photographic Historical Society 20th Annual Photogra phica Trade Fair, Novi Community Center, Novi, MI. Contact MiPHS, Box 2278, Birmingham, MI 48012.

October 27 (MD)  Baltimore MD Show & Sale, Chesapeake Antiquarian Photographic Society, Quality Inn, 1015 York Rd., Towson, MD. Contact A.P. Ben Miller, 1335 Valley Brook Rd., Baltimore, MD 21229 or Jack Dewell, 3815 Old Columbia Pike, Ellicott City, MD 21043. Call 301-461-1852.


October 27 (IA)  The New Des Moines Camera Show, Park Inn International Motel, 1050 6th Ave., Des Moines, IA. Call 515-289-2427.


November 2 (MO)  Kansas City Camera Show & Sale, Ramada Inn Southeast, 6101 E. 87th St., Kansas City, MO. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2242.

November 3 (CA)  Pasadena Camera Show & Sale, Pasadena Elks Lodge, 400 W. Colorado Blvd., Pasadena, CA. Contact Anton at Bargain Camera Shows, Box 5352, Santa Monica, CA 90409. Call 213-396-9463.


November 3 (AZ)  Fall 91 Tucson Arizona Camera Show, Shrine Temple, 450 S. Tucson Blvd., Tucson, AZ. Contact Photographic Collectors of Tucson, Box 18646, Tucson, AZ 85731. Call 602-721-0478.

November 9 (CA)  Culver City Camera Show & Sale, Vetrans Memorial Auditorium, Culver City, CA. Contact Anton at Bargain Camera Shows, Box 5352, Santa Monica, CA 90409. Call 213-396-9463.

November 10 (IL)  Chicago Fantastic Camera Show, Westin Hotel O'Hare, Rosemont, IL. Contact Fantastic Photo Flea Market, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2242 or 815-886-0101.

November 10 (AZ)  Phoenix Camera Shows, Best Western Sir Fransis, 4321 N. Central Ave., Phoenix, AZ. Contact Dale at 602-266-3301.

November 10 (CA)  Buena Park Camera Swap Meet, Sequoia Club, 7530 Orange thromple Ave., Buena Park, CA. Call 714-786-8183 or 786-6644.


November 10 (NJ)  Second Sunday Camera Show, Community Fire Hall #1, parish Drive, Wayne, NJ. Contact Second Sunday Camera Show, 25 Leary Ave., Bloomingdale, NJ 07403. Call 201-838-4301.

November 10 (Que.)  7th Photographic Flea market, Holiday Inn, Montreal Pointe Claire, 6700 Route Transcanadienne, Pointe Claire, Quebec. Contact Robert Tucci, 1062 Chemin des Vieux Mouins, L'Acadie, Quebec J0J 1H0, Canada. Call 514-346-9614.


November 17  (IL)  Chicagoland’s Camera and Photo Show, Holiday Inn, Rolling Meadows, IL. Contact Photo Show, Box 72695, Roselle, IL 60172. Call 708-894-2406.

November 17  (MI)  Detroit Super Used Camera Show & Model Shoot, Northfield Hilton, Troy, MI. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2242.

November 17  (FL)  Kendall Camera Club of Miami 10th Annual Photo Flea Market, North Miami Armory, 13250 NE 8th Ave., North Miami, FL. Contact KCC, Box 56-0042, Miami, FL 33256. Call 305-565-1565.

November 21  (VA)  Washington D.C. Photorama USA Camera Show & Sale. (See Nov. 2.)

November 23-24  (CA)  Western Photographic Collectors Association Fall Show, Pasadena Center, 300 E. Green St., Pasadena, CA. Contact WPCA, Box 4294, Whittier, CA 90607. Call 213-693-8421.

November 23-24  (OH)  16th Cleveland Photorama USA, Cleveland Days Inn, 4600 Northfield Rd., North Randall, OH. Contact Photorama USA, 20219 Grosse Pointe Woods, MI 48236. Call 313-884-2242.

November 24  (CA)  Sacramento Camera Show, Holiday Inn, 5321 Date Ave., Sacramento, CA. Contact Carney & Co., 231 Market Place #379, San Ramon, CA 94583. Call 415-828-1797.

November 24  (NY)  The second annual Photograph Collectors’ Forum will include a talk by Fred Spira on the history of stereo equipment. Reservation required. Swann Galleries, 104 East 25th St., New York, NY. Call Dale Kaplan or Denise Bindy, 212-254-4710.

Nov. 30-Dec. 1  (OH)  Ohio Camera Swap, 68 Shadybrook Armory, Cincinnati, OH. Contact Bill Bond, 8910 Cherry St., Blue Ash, OH 45242. Call 513-891-5226.

December 1  (GA)  Atlanta Camera Show & Sale, Atlanta Mariott Northwest, 200 Interstate Parkway, Atlanta, GA. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2242.

December 1  (MI)  Ann Arbor Camera Show & Sale, Sheraton Inn Hotel, 3200 Boardwalk, Ann Arbor, MI. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2242.

December 7  (PA)  Philadelphia Camera Show & Sale, Holiday Inn Northeast, 3499 Street Rd., Bensalem, PA. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2243

December 8  (AZ)  Phoenix Camera Shows. (See Nov. 10.)

December 8  (CA)  Buena Park Camera Swap Meet. (See Nov. 10.)

December 8  (NJ)  Second Sunday Camera Show. (See Nov. 10.)

December 8  (VA)  Barone Camera Swap Meet, Holiday Inn, 1489 Jeff Davis Hwy., Arlington, VA. Contact Camera Swap Meet, Barone & Co., Box 18043, Oxon Hill, MD 20745. Call 703-768-2231.


December 8  (MI)  Metro Detroit Camera Show. (See Nov. 10.)

December 15  (CA)  Pasadena Camera Show & Sale. (See Nov. 3.)

December 15  (IL)  Chicago Fantastic Camera Show. (See Nov. 10.)


January 4-5  (MI)  24th Detroit Photorama USA, Southfield Civic Center, Southfield, MI. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2243.

January 4-5  (CA)  7th Glendale Camera Show & Sale, Glendale Civic Auditorium, Glendale, CA. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2243.

January 8  (OR)  Oregon’s Focal Point Camera Shows, Oregon State Fairgrounds, Salem, OR. Contact Mike Lowery, 211 E. Ellendale, Dallas, OR 97338. Call 503-623-6300 days, or 623-9076 even.


January 12  (FL)  4th Tampa Camera Show & Sale, Days Inn, 2520 N. 50th St., Tampa, FL. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2243.


January 19  (FL)  2nd Daytona Camera Show & Sale, Voyager Hotel, 2424 N. Atlantic Ave., Daytona Beach, FL. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2243.

January 25  (FL)  3rd Gainesville Camera Show & Sale, University Center Hotel, 1535 SW Archer Rd., Gainesville, FL. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2243 or 407-352-1400.

January 26  (FL)  4th Orlando Camera Show & Sale, Howard Johnson Hotel, 304 W. Colonial Dr., Orlando, FL. Contact Photorama USA, 20219 Mack Ave., Grosse Pointe Woods, MI 48236. Call 313-884-2243 or 407-352-1400.
Letters (Continued from page 3)

the fire, shaving became almost impossible and the poet, who up till this point had always been clean shaven, now wore a full beard for the rest of his life.

As for the young lady in the photograph, she is most likely his daughter Edith who was a great comfort to the aging poet.

Arthur Farrell
Huntington Station, NY

Niagara

I should like to address the many points made in Larry Gottheim’s letter questioning “Niagara”, [Vol. 18 No. 1] I chose to write about Bierstadt, Barker and Curtis because they were the leading Niagara Falls stereo photographers. In American photographic competition, they were the only photographers to win awards for their Niagara Falls work from the 1860s through the 1880s. I found early stereo photographers depicted their scenes as faithfully as could be done, often in awkward, straightforward fashion. It wasn’t until about 1865 that photographers had the ability to be more creative due to greater advancements in photographic technology. Look for more details about this in upcoming issues of American Stereo.

Mr. Gottheim was correct in his identification of Blondin in the stereoview illustrated as Figure 8 in my article in SW Vol. 17 No. 4. The card I was using was mislabeled.

The London Stereoscopic Company may well have published 27 stereographs of Niagara Falls. Mr. Gottheim takes my statement out of context; the London Stereoscopic Co. published a series of twelve views in 1860. See The Art Journal page 3L.

Mr. Gottheim also questions why the Langenheim views were replicated if they were of poor quality. Again Mr. Gottheim has taken this out of context. My point was that the Langenheim endeavor was not successful because the views could not be focused and the quality of printing paper was not very high in 1854.

The early stereoviews were replicated because photographers used the same vantage points for their work.

I am correct in suggesting that Anthony did “seize the chance to profit from distribution of large numbers of views without attributing authorship.” Linking himself with Babbitt in 1860, Anthony went on to mass production in 1862. These views (1862) were generally not of superior quality when compared to the work of Bierstadt, Barker and Curtis.

I am continuing my research and always welcome the opportunity for lively debate.

Mark DiLaura
Cambridge, MA

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Extended Display for Holmes Prototype Viewer

The 132 year old prototype stereoscope crafted by Oliver Wendell Holmes himself is currently on display at the New Hampshire Historical Society, 30 Park Street, Concord, NH. Its stay there had at first only been scheduled through May 17 of this year, but now has been extended to December 31, 1991. The special display of the simple device which, more than any other single thing, made stereoviews part of popular culture is in the NHHS year-long exhibit on 150 years of photography in that state. A joint project of the NSA, the New Hampshire Historical Society, the Photographic Historical Society of New England and Phillips Academy restored and stabilized the delicate artifact to make possible its first public showing in many years.

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