Through the Electron Window • Stereo Emeralds
Located at 2201 Laguna St. in Santa Barbara, California, the mission dates back to 1820. The complex features a stone, 2-story, L-shaped church with gabled roof sections. There are a pair of square fronted corner bell towers with arched openings, dome, and small cupola facing a center pediment with niche for statuary. The large round-arched entrance is flanked by three Ionic columns on each side. The structure was partially destroyed by an earthquake and rebuilt in 1927. The facade and towers were demolished and restored between 1950 and 1953. This is the fourth church to be located on this site and is the state's only mission not secularized in the Mexican decree of 1833. Ownership is private.
IN THIS ISSUE

Through the Electron Window ........................................ 4
by Norman B. Patterson

How Well Do You Know Your Prints? ................................. 14
by John Dennis

Kodak Alterations Anybody Can Do ................................. 15
by Marshall Rubin

The Third Dimension at Photokina ................................ 16
by Dieter Lorenz, translated by Richard Mills & Vance Bass

Arizona Stereo: An Update ........................................... 19
by Bruce Hooper

Stereo Emeralds .......................................................... 22
by Joseph Henggeler as told to Laurance Wolfe

Life After Two Expos for a Pair of 3-D Films ....................... 31
by Don Marren

A Working List of Western Photographers ......................... 31
by John Dennis

NSA Philly ’87 ............................................................ 34
by William Brey, General Chairman

Bicameral Art and the 3-D Zone ......................................... 38
by Ray Zone

Vertical 3-D Viewing .................................................... 40
by Paul Wing

The Literature of Stereoscopy: 1853-1986 ............................ 44
by Harold A. Layer

REGULAR FEATURES

Editor’s View .............................................................. 2

Letters ............................................................................. 3

The Society ..................................................................... 32

The Unknowns ................................................................ 36

Newviews ....................................................................... 42

Calendar ......................................................................... 46

Classified ....................................................................... 47

Front Cover:
The head of a red ant as seen through a Scanning Electron Microscope in a stereo pair produced by Norman B. Patterson. Magnified 50 times in the actual view, this is one of several such images to be seen “Through the Electron Window”—the feature by Mr. Patterson in this issue.
Editor's View

"All The Views That's Fit To Fuse"

Welcome to Volume 14, Number 1 of the only magazine of its kind in the world. There are, of course, several very fine publications produced by stereo photography clubs around the world—many in effect representing entire countries. But only Stereo World attempts to consistently cover both the historical AND the contemporary aspects of stereo imaging, and to do so as much as possible on a world wide basis. The first issue of a new volume is always a good one in which to remind everyone that it is completely up to them as interested readers to help achieve the above goals and to expand both our coverage and readership.

This doesn't mean everybody has to research and write a feature article or send in a hot tip on a new stereo camera. It simply means sending us a comment, question or observation when you notice something that could possibly be of interest to some segment of the stereo collectors, photographers, artists, researchers, historians, librarians, etc. who read Stereo World. Any non-profit, all volunteer effort like this depends completely on its membership for EVERYTHING that eventually appears in print AND for spreading word of our existence to potential new members. Try to keep a few NSA membership folders and/or the Stereo World brochure handy (in your car for instance) to leave with people at photo shows, antique shops, camera stores, schools, museums, etc. The NSA office in Columbus will be happy to send you some.

One matter on which we've had remarkably little feedback is the question of size format in which views are reproduced in the magazine. Vintage views are of course shown actual size, but contemporary stereographs have for some time now been shown in the smaller format associated with easy free viewing (65 mm average separation). For those who can free view both sizes, there is no problem. Likewise for those who free view the smaller pairs and use a viewer on the larger ones.

The concern here is for people who use a viewer for all the stereographs in the magazine. Viewers designed for "full size" views can be hard for some people to use on the smaller pairs. Shorter focal length viewers designed for smaller separation pairs can be just as tricky to use on the larger views (vintage stereographs involve up to 90 mm or so separation sometimes) and can cut off part of the images even when you are able to fuse them. There now exists a variety of viewers (both plastic and glass lenses) ranging from one dollar and up, that could make it reasonable to run all views in the larger, "classic" size. While the present arrangement makes it easier to fit a few more views or paragraphs into the layout, the decision is really up to readers. If this makes a difference to you, let us know sometime in the next few months or mention it at the convention. In the meantime, we'll continue to fit in as many views as possible and leave the fusion up to you.

HOW TO VIEW STEREO WORLD

Viewing the various stereographs reproduced in Stereo World requires a stereoscope capable of being held close enough to the page for proper focus, but designed for viewing full size views comprised of images up to 3 inches wide. (See Stereo World, March/April '86, page 2.)

There is now some choice in the small plastic "lorgnette" type viewers which meet these requirements at minimal expense. RCI Group Inc. has recently introduced a viewer with fairly large rectangular lenses designed specifically for viewing hand-held stereographs. (See Stereo World, January/February '87, page 24.) The new viewer works well with the full size vintage views in the magazine and (with a little practice) will also fuse the smaller reproductions of contemporary stereos currently printed in a parallel free viewing format. They are available for $1.00 each including postage from RCI, 2280 U.S. 19 South, Suite 233, Clearwater, FL 33757.

The more familiar plastic lorgnettes with round lenses and frosted inner edges are available from Mr. Poster, Box 1883, S. Hack, NJ 07606 and Reel 3-D Enterprises, Box 2368, Culver City, CA 90231. (Specify the longer focal length version.)

Even if you free view any and all of the pairs in the magazine, these inexpensive viewers will enable your friends and family to finally see the stereo gems you've been enjoying. They can also be mailed with magazines or clippings or other views—or kept in a pocket or car when Stereo World is being taken along to show potentially interested people.

2 STEREO WORLD March/April 1987
The Great Separation Debate

I offer these comments in response to Bill Patterson's Society Column in the Jan./Feb. '87 issue. Let me begin by stating that I've been touched and moved by Bill's exquisite stereography and commentary as often as I've been impressed by his technical mastery of the stereoscopic print medium! On this subject of separation however, we totally disagree and my letters to him on this have somehow missed the mark. I suspect that he (and others) might even be feeling embarrassed for me on this issue.

I wish that Bill hadn't put down (without naming them) Quentin Burke's excellent Q-Vue mounts without first resolving the basic differences of opinion. I don't pretend to hold a candle to Bill's knowledge of stereographica history, but this particular matter behooves me to respond. Quentin, I believe, based the dimensioning of his mask cutting dies on Red Wing View Company standards. I mount stereo prints commercially, do commercial consulting on stereography, and have designed and manufactured a stereoscope after carefully surveying and considering past technical practice — so there could well be some solid reasoning behind my notions about view cards.

It is simply wrong to say that Keystone and other standard 'scopes can't easily accommodate homologous separations beyond 78 mm. At focus, they will handle 89 mm optically and the telebinoculars only begin to crop 3 inch prints with 1/4 inch of septum (assuming [my] 69 mm of interpupillary distance).

Now, adjustable 'scopes are seldom used at focus, even though they should be. Also, an argument can be made that the average duffer/ Novice who picks up a 'scope for the first time is much more likely to fuse the images if their separation is grossly less than the prism (optical centers) of the 'scopes lenses would indicate. There is a company who — if they were limited to our standard 'scopes — would not exceed a separation of 65 mm!

But most of us dislike viewing an image that is supposed to be at infinity but offers an eyeball convergence of only a few feet. Have you ever noticed how much more grand a scenic becomes when you bring the lenses of a transparency viewer in from maximum to a normal setting? Running the focus out helps too. With a Holmes/Bates style stereoscope, however, we must choose between apparent infinity focus ("accommodation") and (eyeball) convergence — unless the homologous separation of the view is reasonably close to the optical separation of the 'scope's lenses.

"Bad stereo is the worst enemy of stereo!" How often that is repeated. It is incumbent upon us as members of the NSA and The Society to responsibly address the issues of standards in our several media and not simply make assertions. Don't take my word for it — or Bill's. Let us find people who professionally work with human vision — ophthalmologists, say — to consider our arguments and render a decision that will settle the issue. Let's go further and petition the A.S.A. (or whoever) to officially recognize what is standard view format in this country.

I have a boxed set of Keystone views before me. I shall pick cards out at random and measure the maximum separation of each to the nearest millimeter: 84 mm, 78 mm, 80 mm, 79 mm, 78 mm, 74 mm(!), 78 mm, 83 mm, 82 mm, 84 mm, 78 mm. When I mount views, I aim at 3/4 inches (82 mm) between details at infinity. This allows plenty of leeway for those who choose to "crowd in" with the 'scope. That's about the separation you get when a normal 3 inch wide pair have been cut for a normal window and spaced 1/8 inch apart.

Craig F. Daniels
Red Wing, MN

World Flight

I want to congratulate you on the excellent article appearing in the (Nov./Dec. '86 Stereo World on the World Cruiser Project. Quite a contrast to that of the recent successful "Voyager," wasn't it? I've always felt quite close to the Cruiser crew, as I was one of a large group of Boy Scouts encamped at old Wright Airfield in the fall of 1924 when the Cruiser crew flew in to attend the air show held there. We were serving as messengers and ushers for the affair.

Two years later, our freshman high school GEOGRAPHIC society entertained Lowell Thomas at a buffet supper following his lecture at one of the local hotels, where he entertained us with tales of his travels until past midnight when we had to break away to catch the last street car to our homes.

Just a short time before his death, he visited the Wright Air Museum, where I had the opportunity to interview him and his wife in front of the World Cruiser plane at the museum. Just as I took the shot, he removed his glasses, spoiling the exposure. He apologized and we tried another. Turned out that the second was fine of him — Mrs. Thomas had her eyes closed!

Bob O'Brien
Dayton, OH

Good News

This is to let you know that, to my great surprise and pleasure, I have recovered all the stereo views that had been stolen. Thank you very much for publishing the notice of my loss in the September/October '86 Stereo World.

Francis B. Hildebrand
Wellesley, MA

More Inside!

I think you folks do a wonderful job producing such an excellent magazine — especially with all those stereo views inside!!

H. A. Nygaard
Lexington, MA
Would you the spangle of Existence spend
About THE SECRET—quick about it, Friend!
A Hair perhaps divides the False and True—
And upon what, prithee, may life depend?

A Hair perhaps divides the False and True,
Yes; and a single Alif were the clue—
Could you but find it—to the Treasure-House,
And peradventure to The Master too;

Rubaiyat of Omar Khayyam

Through the Electron Window

by Norman B. Patterson

This is an unusual time. In the thousands of years that human beings have puzzled over the world in which they find themselves they were barred from seeing the very small or the very large or the very far away. Yet in a few years it has become possible to see in astonishing detail that which none had ever seen before. Many seem to have no appreciation of the great privilege bestowed upon our time to be able to see what was only puzzled over by the thoughtful minds of the past. Understanding aside, one must first know of things before one can know about them.

We have been the first to see far into the past to distant galaxies through the great telescopes and photographic techniques of the 20th century. We have seen the earth as none before us could from orbiting spacecraft. We have flown with Voyager past the volcanoes of Io and through the rings of Saturn and even seen the bizarre moon of Uranus, Miranda... such a privilege that it happened in our time. We have learned more in a few years than was ever known before of these things. But the greatest thing we have learned is how much there is yet to learn and how little we really understand of what we have seen.

There is a tendency to over-simplify things about which we know little. What are quasars? How did the planets form? Why the discrepancy between Earth and the abject hostility to life which we have found everywhere else we have looked? How does life arise? What is intelligence? What could have turned a big object like Uranus on its side, satellites and all? With all that we have discovered the unanswered questions have increased. However we speculate, the only life we really know of is on Earth and the only source of life we know of is life itself. But the search goes on.

As if seated for a portrait, this interesting little fly is seen at 50X magnification. Its overall appearance was somewhat antlike although some of its head features appear wasplike. The seemingly endless variations in the insect world are mindboggling. (All SEM stereos by Norman B. Patterson.)
Using the scanning electron microscope is a voyage into the unknown, or at least it can be. I have known those who never looked beyond a narrow application related to their work. But it can open a fascinating new world that is all around us but which we cannot normally see.

I have on a summer morning walked through the fields and woods collecting a few tiny oddities that looked promising among the flora and fauna. In the afternoon I tried to capture in stereo a photographic record of anything interesting which the SEM could show me with its high magnification and excellent depth of field. Sometimes I was successful and other times I had to look to a better day.

Illustrated here is a selection of the results obtained on the more fortuitous occasions (one good picture was a certainty to "make my day"... sometimes my week!). It can be enjoyed for what it is, much in the spirit of picking up pretty shells and pebbles at the beach. It is a random look at a world which has been with us all along. But it is none-the-less a fresh and exciting wonderland that I have tried to sample.

All of the stereographs were prepared from negatives produced at The Pennsylvania State University, The Behrend College, Erie, PA; microscopy and photography by the author. An earlier article describing some of the methods and techniques used in stereo SEM photography appeared in Stereo World, July/August 1982, to which the reader is referred.

The scanning electron microscope (SEM), as a commercial reality, has been with us since 1965. It works on an entirely different principle than light microscopes and is capable of producing quality photographs at high magnification. It is especially noted for its great depth of field which at times gives something of a three dimensional appearance to single flat pictures of microscopic-size subjects. Many fine photographs have been made using the SEM. Probably none are better than those by David Scharf which have appeared, among other places, in Science 81, The Invisible World, and his own book Magnifications. I would highly recommend these publications to those who would like to ponder them at leisure and absorb the wonders they reveal.
A small moth (sometimes called miller) shown in a head-on portrait at 30X.

Dill florets at 30X. Each little floret is about 1/10th of an inch or less in diameter when fully open, and is a complete flower in itself. The rider on one here is an aphid.

Pollen grains show a lot of interesting characteristics, especially when magnified 1000 or more diameters. They are also touchy to stereograph at such magnifications, having a great tendency to twitch in the electron beam. This money plant pollen is seen at 2000X.
A red ant at 50X.

Head of the red ant, seen at 100X.

Behind the pinchers at 200X, the mouth of the red ant is seen to be quite complicated.
Another variety of red ant shows marked differences. Seen here at 50X.

A portion of a fruit fly's head showing eye cells, antenna with arista, and bristles at 400X.

Detail of one of the fruit fly's bristle sockets at 3000X. Note the fluted stem and comparative size of body hairs and bristles.
I might make the observation that none of the usual problems of black and white photography are bypassed in using the SEM. Good photographs are produced by picky attention to detail, and the usual questions of composition, technique, and photographic impact in the final product are ever present in SEM photography. Added to that are the legion of problems peculiar to the SEM itself. The road to the good photograph is littered with attempts which didn't make it and correctable errors that have gone back for second and third tries.

As a stereographer, my approach to this marvelous instrument was directed toward the possibilities of producing stereo pairs which, if the instrument would permit, could be subjected to the same photographic and stereoscopic criticism as are views produced by any of the other processes for obtaining 3-D images. I am now convinced that this is possible and the doors are wide open to those whose photographic and artistic skills exceed what I am able to muster. Although many stereographs have been produced on SEMs from the very beginning, few have been distributed for general review and enjoyment. This may not be unexpected when one considers that most SEM operators are not trained photographers, let alone stereographers. Indeed, one finds an attitude, at times, of 'the photography is not particularly important—put forth in compensation, while a bundle of photographically poor results is held tightly in hand. It is my belief that scientific application is no excuse for poor photography—and, indeed, the combination is not acceptable.

The principle by which the SEM works can be stated briefly and, I believe, simply if one avoids the details. A stream of electrons is directed and focused into an extremely small diameter probe which sweeps across the specimen. When a spot on the specimen is reached by the probe it responds by emitting secondary electrons. These secondary electrons are collected and eventually determine the brightness of a corresponding spot on a cathode ray tube (TV picture tube). As the probe sweeps rapidly over a region of the sample's surface, a picture is constructed on the TV screen based on the differences in response of the various surface features to the electron probe. The magnification obtained is simply the ratio of the area of the TV screen to the corresponding area scanned by the beam.

The entire process is carried out under high vacuum. Some specimens need help in the way of special preparation. They may have difficulty withstanding the abuse of the vacuum or the electron beam. Others may not be good producers of secondary electrons. Methods such as surface coating with carbon or gold, critical point drying, and freezing are used to overcome these problems. Such procedures involve one in varying degrees of time, trouble, and expense. When it is
possible to get along without such heroics, we should do so. For stereos, when working with untreated specimens, fast work is called for to avoid the appearance of anomalies between the times the stereo halves are recorded. Since the electron beam is fixed within its scanning pattern, stereo halves are created by motion of the sample itself. For the most part, the views illustrated here were made by rotating the subject approximately $2\frac{1}{2}$° between the two exposures. This usually results in comfortable viewing and can be applied at any magnification. A greater angle of rotation is only advisable for especially flat subjects. One of the most common errors made by microscopists unschooled in stereoscopy is gross overrotation, perhaps 10 to 15° or more... real eyebusters when one tries to view them (the kind of thing that gives stereo a bad name among initiates).

It is possible to produce stereo by motion perpendicular to the electron beam, but this imposes restrictions on magnification and does not, in my experience, often result in good stereo. It also seems prone to other anomalies which discourage continuing experimentation with it when the rotation method seems to do the job with fewer problems. It is to be noted, however, that the production of secondary electrons is often very sensitive to slight changes in the angle at which the primary beam intersects the surface of the subject. This also produces problems in stereo, sometimes very bothersome problems. One must be prepared to make repeated attempts on difficult subject matter which seems determined not to yield a passable stereograph easily. I have a considerable file of good stereo halves (flatties) which gives mute testimony to my own experiences in this regard. But photography has always been an unending process of correcting errors to get better pictures and this aspect of it is no different. I have never seen a photograph which could not be improved and never expect to see one.

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This tiny gnat-like fly, seen at 50X, appears more alien with its wrap-around eyes and feathery head than many less common insects.

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A small beetle, reminiscent of ET trying to call home, is seen here 50 times its normal size. Actually its overall appearance was lady-bug like and quite colorful... though it had a longer neck and no spots on the shell. Mouth parts are very specialized according to the food consumed.
A small fly, somewhat resembling a mosquito but lacking a piercing mouth part. It has two huge compound eyes and, on the top of the head, three simple eyes. Seen here at both 100X and 200X.

The Inquisitor. Seen at 50X this leaping spider seems curious but ready for anything. They are very agile and have good vision.
A small brown web building spider at 30X.

Magnified 100 times, this tiny green grass spider seems formidable. Actually, it is harmless.
Can you tell a collotype from a platinotype? Do you know how to properly store or display either one? Avid stereo collectors eventually find themselves with a variety of 19th century photographic print processes represented in their collections, especially if they can't resist the temptation to complement their holdings with vintage flat prints, as well.

But even if you've never had your hands on anything other than standard albumen or gelatin silver bromide stereographs, descriptions of the numerous other 19th century methods of photographic reproduction can be fascinating—and even more so if accompanied by full color illustrations and diagrams as seen in the new Kodak publication, Care and Identification of 19th Century Photographic Prints, by James M. Reilly.

Nowhere in the book or its promotional material is any family relationship between the author and the famous stereographer John James Reilly mentioned, but James M. Reilly probably knows about as much about 19th century processes as anyone alive today. He is on the faculty of RIT and is director of the newly-created Image Permanence Institute. The book is a major reference work for both amateurs and professionals in the field of photographic collecting/identification/preservation. It literally examines from the inside out every major photo printing method used in photography's first 3/4 century. Salted paper prints, platinotypes, collodion prints, albumen prints and a wealth of others are covered in detail, often with diagrams identifying each layer from base support to the top surface of the print. Electron microscope images reveal side views of the actual image particles and their relation to the base in several examples of vintage prints.

The 116 page book is filled with color reproductions of 19th century prints of every variety, seen in various stages of deterioration as caused by several identified internal or external destructive forces. Also included are fine color illustrations of what each type of print should look like if properly preserved, along with greatly enlarged detail areas revealing the texture and grain make-up of each material. Beginning with a history of photographic printing from 1840-1900, the book takes the reader through detailed sections on component print materials; identification and forms of deterioration; stability of print materials; and the proper care, storage and display of photographic prints. Specific care recommendations, supported by new research findings, are given concerning enclosures and environmental conditions for storage.

Fortunately for stereo collectors, the book devotes considerable attention to albumen prints, but other print materials and processes are also described including salted papers, platinotypes, cyanotypes, carbon prints, woodburytypes, gum bichromate prints, collodion printing-out papers, gelatin developing-out papers, gelatin printing-out papers, ambrotypes, daguerrotypes, tintypes, collotypes, photogravures and letterpress halftones.

Any work of this type will of course omit some materials or questions of procedure. Few of the practical, do-it-yourself directions for preserving, cleaning or restoring stereo views as outlined in Christine Young's excellent series Basics of Preservation in several 1983 and '84 issues of Stereo World will be found in the Kodak book. Much of the material on storage is oriented toward libraries and museums and those experienced at writing grant requests for several thousand dollars, but there is enough basic information to keep any collector or student of photographic history delighted. Included with the book (or available separately from Kodak) is a two-sided Identification Guide flowchart providing illustrated steps to identify and date the major types of 19th century prints and processes.

The softbound, 8 1/2 X 11-inch volume contains 116 pages, with chapter references and a bibliography. It is available now from photo dealers or by writing to: Eastman Kodak Company, Department L-5, 175 Humboldt Street, Rochester, NY 14610-1099. Care and Identification of 19th Century Photographic Prints has a cover price of $24.95. Additional copies of the Identification Guide flowchart are also available and have a list price of $5.00 each.
Stereo cameras were meant to be used, not caressed! If you subscribe to that statement you might consider ways of upgrading your delectable 3-D dinosaur. But avoid this article if all you want to do is maintain your camera's original looks and functions.

Being the proud owner of four different model stereo cameras, I often seek ways to modernize their functions, even when it means that I must downgrade the camera's value as a collector's item.

My favorite oldie is the Kodak Stereo camera (C.1954). I find its picture-taking capabilities meet or surpass every other 5-P format camera regardless of their original selling price, and the camera is the easiest quality model to use, save the 1980's Nimslo. I will limit discussion to the Kodak, although some of these tips can be applied to other cameras.

First, a little discussion of the Kodak model. In keeping with the desires of the Rochester firm to combine an economically-priced, easy-to-use picture taker, the camera was equipped with an auto film load feature, not unlike those found in modern 35mm cameras. All one has to do is pull the film leader across to the take-up side of the camera, shut the back, and advance the film. There was no trick threading, and it worked!

Inserting the PC cord (attached to either the hot shoe or directly to the flash unit) into the flash adapter on the camera. Teco-Nimslo close-up stereos by the author.

The camera's viewer automatically compensates for parallax, being centered between the lenses. This feature is found on far more expensive models, i.e. the Realist.

But the Realist didn't incorporate an easy-to-see bubble level. Compare the Kodak bubble level to the one in the more expensive Revere, and the Kodak wins, hands down.

The Kodak model also features a true rapid rewind knob that quickly and painlessly enables the film to be rewound into its casing. Try that with a Realist or even a super-expensive Wallensak. Your aching fingers tell the story.

The Kodak model lacks some useful features that other, more expensive models touted. With relatively little money or know-how, you can add those features and make your Kodak, or similar camera, behave like the elite stereo cameras.

Owners of Kodaks who crave precise focusing would be well advised to attach a rangefinder. I obtained a portable rangefinder at a camera collector's show, and it only cost me three dollars. The little device has a foot below it for insertion in an accessory shoe. "But," you might say, "the Kodak doesn't have an accessory shoe." No problem. Just epoxy one to the top of the camera. You'll have to cement over the handsome Kodak logo, but do you want a logo, or precise focusing? Use lots of rubber bands to hold the accessory shoe down while the epoxy is curing. In about a day it will be a permanent fixture.

The finished "modern" Kodak stereo with rangefinder mounted on hot shoe, which is mounted on the epoxied accessory shoe. To use both rangefinder and flash at the same time, the flash would need to be mounted on a side bracket.

(Continued on page 18)
This article appeared in the November, 1986 issue of the German photography magazine MFM Moderne Fototechnik, and is used with permission. Translated by Richard Mills and Vance Bass.

Judging from the entries in this year's photokina catalogue, anyone interested only in stereoscopy, or even 3-D in general, would have been forced to the conclusion that attending the trade fair would not have been worthwhile. As in previous years, the only entry in the "Products" section was "stereo viewers," and it contained a grand total of three companies (in 1984 there were four), and one of those proved to be erroneous. (Apparently it's simply impossible to delete the Gitzo listing, even though they stopped manufacturing their twenty-year-old "museum piece" stereo viewer long ago.) But despite the sobering results of this research, a tour through the exhibits revealed a large number of old and new 3-D products like the familiar "stereo systems." These consist of beamsplitter attachments and the corresponding viewers made by Pentax and Stitz. (The latter is marketed by Doerr Foto Marketing in Neu-Ulm.) Due to lack of demand, however, the Stitz system is no longer being manufactured, at least for the time being.

Reports on one of the new products spread like wildfire among the specialists: a real 35mm stereo camera is available! Called the Hectron, it has been available for the last three months from a two-person firm of the same name in Nice. Although made from two Nikon FG 20 cameras, the Hectron is truly a real stereo camera, and not a coupling of two cameras. Its stereo halves have a full 24 by 36 mm format at an interocular distance of 76 mm, and lenses other than the standard 1.8/50mm lens can be used with the camera. Dietrich Kempski, the West German distributor, also sells and installs pairs of Kowa Cinemascope attachments for the Hectron.

Nimslo is apparently gone for good from photokina. Even Sunpak Corporation of Tokyo, which represented Nimslo at the last photokina, is no longer affiliated with it. On the other hand, Prestinox, the French manufacturer of projectors based in Villepinte, offers a Nimslo camera with a prism attachment that produces half-frame stereo pairs. It was supposed to be available in January, 1987, together with a double projection lens that allows stereo projection using any Prestinox projector.

When talking about stereo viewers, many people immediately think of Viewmaster. In Europe, Viewmaster reels and viewers are still considered to be part of the toy market. As a result, its stereo presentation was hidden away inside the Viewmaster stand, while the two-dimensional projectors and other products were displayed prominently. The range of reel titles fell into two main categories: children's television shows, featuring Muppets, Gobots and similar characters, and pictures of the Near East for the tourist market. A so-called Mecca Box is shipped over there by the container. A new viewer, the Model 11, will be introduced this year at the Nuremberg Toy Show. Stereokit Italia in Turin displayed an entire series of new stereo viewers: models for both mounted and unmounted slides (on film strips and 2 by 5 by 5), and one for pictures made at photo booths, which, generally equipped with two adjacent lenses, produce pictures that can be viewed three-dimensionally. These devices, made of plastic and easy to mail, are designed to be used as samples; in large quantities they can be manufactured very cheaply. The viewing lenses, however, are rather small, with a diameter of only 16 mm. People whose eyes deviate significantly from the 62 mm separation used here may well
experience difficulties in perceiving a spatial effect. This also holds true for another viewer, shown in a spatial effect. This also holds true for two-dimensional slides. Austria’s Bonum Company, based in Linz, showed its automatic stereo format mount with 23 by 23 mm cutouts (for the 24 by 36 mm format) and 23 by 28.5 mm cutouts (for the 24 by 30 mm half frame format). Its special perforation hole hooks make it possible to compensate for vertical mounting errors and minor twisting errors. If you can believe the rumors, a different stereo half frame mount for the 24 by 33 mm American format will appear in the first part of 1987.

The great advantage of the single frame mount is that it allows the dissolve devices of the audio/visual world to be used for stereo projection. This is accomplished by utilizing polarization filters with both systems and projecting images on a metallicized screen (to avoid depolarization). However, this necessitates an extremely accurate image placement; otherwise vertical parallax errors will occur. Silma International of Turin displayed not only its sound slide projector combination Eumig Sound 2/Module 2, but its new offering as well, the “dumb” (and consequently less expensive) version Eumig Dia Seven module compatible/Module 2. Gert Schulte, based in Berlin, debuted his 3-Date 200 S, a “tuned” modification of the Rollei projector P 3801 that allows exact image placement and a high intensity of light. Schulte has taken advantage of the relatively slow slide changing time (approximately three seconds) to achieve an additional effect—by means of an accessory rotating filter, slides are shown in two dimensions while they are being changed. The ability to compare both versions emphasizes the stereo effect.

Another projector manufacturer, Weber Projections of Nuremberg, plans on manufacturing a stereo version of its new dissolve double projector.

Perspective control (PC) projection lenses designed to eliminate trapezoidal distortions, and hence vertical parallax errors, during stereo projection by two adjacent projectors were offered by Schneider-Kreuznach and ISCO Optic of Goettingen, formerly Schneider’s sister firm. Schneider also carries eccentric rings for large shifts from the vertical axis, as does ISCO its first variable lens in PC format.

Harkness Screens of Boreham Wood, Hertfordshire, England, which manufactures screens for movie houses, demonstrated a PCV-based metallicized material called Spectral 2000. Because of its angle of dispersion, it is suitable for both normal and stereo projection. (This was demonstrated by showing a stereo film.) However, this material is so easy to damage that it should only be used in permanent installations. Sawaco Screen of Barmstedt demonstrated the notable qualities (including high reflectivity, large viewing area, and low glare) of a video monitor material that it has developed. Based on polymethylmethacrylate (PMM), it is suitable for the rear projection of stereo images.

Stereoscopy is increasingly used in audio-visual technology. This started back in photokina 1982, when TC Studios Fred Oed of Ludwigsburg presented its standard-setting stereo slide show, in which “registered” (slides exposed and mounted with extremely high precision) slides were shown for the first time. This trend was again visible in 1984’s photokina with a similar slide show presented by AV Studio of Stuttgart, and culminated in 1986 with three separate slide shows by Zeiss, Kodak, and Hasselblad. At the Zeiss stand, the well-known stereo photographer Rolf Koch presented “Expressive Forms of Architecture in Germany” in the form of stereo photographs that he made using Zeiss lenses in 2 by 6 by 6 stereo cameras of his own construction. Although taken under “amateur” (available light) conditions, they were of exceptionally high quality. Kodak’s stereo audio-visual show, “Visions” from Stuttgart’s AV Studio Daldrop, served not only to attract the public, but also demonstrated the stereoscopic possibilities and capabilities of Kodak carousel projectors. Particularly impressive in this show, which was produced utilizing objects from the fields of special effects and graphic arts, was...
the combination of dissolve sequences with zoom effects; it came close to achieving film effects. This was made possible by Schneider’s new motor zoom Vario-Cine-Xenon AV MC 3.9/85-210 mm, which was used in pairs for stereo projection. Hasselblad’s stereo audio-visual show was simply a presentation of its products; in terms of stereoscopy, the quality was very low. The numerous vertical parallax errors frequently strained the viewers’ eyes.

In the area of film, two products of interest were to be found: the “35mm 3-D Arrivision” optical system developed by Munich’s Arri, and Erich Krentz’s 35mm film camera prototype, which was shown by the Technical University of Cologne’s Department of Photographic Engineering. This camera moves film by two objective lenses, placed at a separation based on the distance between eyes, in such a way that the upper and the lower halves of the 35mm frame are exposed. The resultant phase shift of 22 frames between the left and right image is corrected when the film is copied.

Westphal System in Nuremberg introduced a pair of 3-D glasses that alters the size and brightness of a picture for each eye. Designed primarily for television viewing, it helps create a degree of spatial effect in normal (e.g., two dimensional) pictures. However, this effect does not stand comparison with true three-dimensional pictures.

Following the lead of Rollei Fototechnik, which this year did not present its photogrammetrical products, three different photo measurement systems were shown at this year’s photokina by Hasselblad, Bronica, and Leitz, together with corresponding evaluational systems, the first two of which are meant for stereoscopic photogrammetrical purposes.

Photokina’s transition from the world’s fair of photography to that of the picture was evinced in the 3-D section by the inclusion of holography, modest as its current presence may be. Ilford had holograms on display, and simultaneously announced its new emulsions for holography. They were displayed at the stand of the Technical University of Cologne, where Professor Gutjahr and his students presented their work, and at the stand of Tento Ote (also of Cologne), which had on display extremely fine, large format works from the Soviet Union produced by the Federal Optical Institute in Leningrad by means of the Denysuk process. And finally, Rita Wittig Academic Publishers of Hueckelhoven displayed its new publication, a holographic fable by Peter Heiss that is oriented towards “understanding and making your own holograms.”

In concluding, mention should also be made of two concurrent exhibits that included stereoscopic objects. First, “The Photographer’s Favorite Child,” on display at a savings and loan, contained a number of old stereo cards with pictures of children, from the collection of Karl-Heinz Hatle, which were easily viewed using Hatle’s new “Multiscope.” And second, Christian Hasucha’s items at the Gallery van Aken included artistic efforts in three dimensions that utilized the principle of the Wheatstone stereoscope in a surprisingly simple way.

KODAK ALTERATIONS ANYBODY CAN DO

(Continued from page 15)

for an electronic flash. Such an accessory shoe costs about five dollars. Make sure either it or your flash unit has the necessary PC cord for plugging into a flash adapter, available from Reel 3-D at $5.95. Of course, when using the flash, you’ll have to remove the rangefinder, and vice-versa.

The next modification costs about three bucks, but it can save you much money and heartache. If you’ve ever mistakenly shot a roll of film using the wrong meter setting, this device can help you avoid that problem. It’s an attachable film memo holder, into which you place the end flap from the film carton. The end flap contains two valuable pieces of information: the film’s ASA rating, and the number of exposures.

The memo holder is simply stuck to the back of your camera (place it with great care, or you’ll live with the consequences). Peel away the paper backing to expose the sticky surface, find a clean, suitable spot on the back of the camera and press hard!

There you have it. For less than twenty dollars, you’ve added some features guaranteed to bring your camera into the latter part of the twentieth century!
Since the publication of “Arizona Territorial Stereography” in last year’s issues of Stereo World I have continued adding to my checklists, revising and updating information. I now have a much clearer picture of the extent of stereography and photography in Arizona.

Francis Augustus Cook was not the only photographer in Prescott about 1864. Apparently there was another named Charles Thomas Rogers who was from Maine. Both men are listed in the “Special Territorial Census of 1864.” Charles Thomas Rogers was 35 years old, single, owned property valued at $400, and he had been living in Arizona for five months, while Cook was 32 years old, single, owned property valued at $400, and his occupation was listed as Painter. He was from New York, and he had been living in Arizona for one month. The census data suggests that Cook might have been Roger’s assistant.

Further examination of census data reveals Adolfo Rodrigo was not the first photographer to establish a gallery in Tucson. He was preceded by an Alabamian named John C. Preston. Preston is listed in the “Decennial Federal Census, 1870, For The Territory Of Arizona.” Preston was 27 years old, and he owned property valued at $150.

The census data further reveals that William Hamilton Williscraft was born in Canada; Daniel Francis Mitchell, the son of Angeline B. Mitchell, was born in Massachusetts; Cicero Grime of Globe was born in Arkansas; Juan Rodrigo of Tombstone was born in Mexico; and Camillus S. Fly had a younger brother named Webster who was born in California.

Another useful source of information about Arizona’s stereography is “Picturesque Arizona” by Enoch Conklin, a journalist and operator for Continent Stereoscopic Company in 1877. Conklin’s book contains many illustrations taken from stereographs. Examples are “A Squad of Indians at a game of cards” on page 233 taken by John K. Hillers in 1874; “Ruins near the Great Casa Grande” on page 287, taken by Henry Buehman; and “The Toltec Mining Camp” on page 345, taken by Enoch Conklin for the Continent Stereoscopic Company in 1877. Something needs to be said about Enoch Conklin. Conklin was a sketch artist for Frank Leslie’s publications in New York City who toured Arizona Territory during the fall and winter of 1877. He took a brief tour to Prescott in the fall, but in the winter he accompanied Colonel J.D. Graham, Secretary of the Aztec Mining Company, and his party, on an extended tour of the southern part of the territory. All original Continent Stereoscopic images can probably be attributed to Conklin, while other negatives were purchased from the Buehman and possibly the Rothrock gallery.

A final source of information is the stereographs themselves. The earliest stereographs published locally in Arizona Territory are those with the “Flanders & Penelon” imprint. J.R. Riddle, operator for Leonard & Martin of Topeka, Kansas, mentions on the back of his stereographs that he took views of Arizona. He might be another photographer who was active along the route of the Atlantic & Pacific during the 1880’s. Finally, I have found more stereopublishers in Arizona than I once thought. During the early 1900’s there were staff photographers from Keystone View Company, Underwood & Underwood, Kelley & Chadwick, H.C. White, the American Stereoscopic Company, and the Universal Photo Art Company. Most stereographed the Grand Canyon.
To accompany this update I have included a checklist with much of the information provided by Jeremy Rowe, Gary Landi, and Peter Palmquist.

I do not want to forget to include some new information of interest. Olaf P. Larson of Moscow, Idaho, toured Arizona in 1895 stereographing the mining towns. Also, during the 1890's Phillips, probably Ren Phillips, with Flagstaff as his base, operated as an itinerant stereographer in the Grand Canyon area. Finally, the publisher, Henry L. Shepard & Co., in conjunction with the publication of their book, "The Marvellous Country, or, Three Years in Arizona," issued three stereographs. One shows a group of Apache warriors, while the other two are Grand Canyon views. All are taken from O'Sullivan negatives. The book was published in Boston in 1876.

Sources
The Arizona Territorial Census of 1880. (Taken June 1880)

Checklist
Flanders & Penelon, Photographic ARTISTS.—Orange/Lavender standard size mounts—c. 1873-1874
Beal Springs
Colorado River near Mojave, A.T.
22. Montezuma Wells—South side
29. Yuma Apaches Wickeups
32. Chiefs at Verde Reservation
40. Aztec Ruins, opposite Camp Verde
D.P. Flanders, Photographer./lor/Artist./SCENES IN ARIZONA.—Gold mounts-Strip label caption—c. 1874
4. "Cave" Station on the Mohave River
17. Arizona Prospectors
42. Montezuma Caves on Beaver Creek
44. Elliot's Factory, Prescott
61. Telegraph Station at Maricopa Wells
62. Moore's Station, at Maricopa Wells
72. Old Camp Bowie (Apache Pass.)
74. Helen's Dome, Apache Pass
90. Casadora and wives, Chief at San Carlos
94. Muster Day at San Carlos Reservation
G.H. Rothrocks/Arizona Scenery, Phoenix, Arizona—
c. 1879-1880—Orange/Lavender mounts
42. San Xavier (two different negatives, one lacks people)
63. Gila Canyon
78. Cave Dwellings on Beaver Creek
G.H. ROTHROCK'S/Arizona Scenery.—ornate verso—Orange/Lavender mounts—1878
Panorama of Prescott
G.H. ROTHROCK'S/Arizona Scenery.—Gold mounts—c. 1875-1877
5. Montezuma Well, East Side.
6. Montezuma Well, West Side.
7. Montezuma Well, North Side.
13. Verde Valley looking North from Camp Verde.
16. Verde Valley and Sutlers stone
18. Verde Valley Looking North.
19. Officer's Quarters, Camp Verde.
27. Aztec ruins at Oak Creek, East Side.
31. Verde Valley from ruins on Oak Creek.
33. Indian Scout.
San Carlos Scouts under Al Seiber at Camp Verde.
Camp McDowell, A.T.
[W.H. Williscraft]—std size yellow mounts
Prescott from the SouthWest.
Curnley St., Prescott.
Fort Whipple looking East, A.T.
C.P. Head & Co., Prescott.
Cerbat, A.T.
Fort Rock.
VIEWS OF ARIZONA SCENERY./D.F. MITCHELL/Photographic Artist./PRESCOTT ARIZONA—imprint on verso—cabinet size—Buff mounts
(Saguaro Cacti)
VIEWS IN ARIZONA/Mitchell & Baer./Prescott, Arizona.—Buff mounts
Montezuma's Castle.
VIEWS OF Arizona Scenery./AND THE Apache Indians in their Native Wilds./Photographed by J.C. BURGE./Globe City, Arizona.—Orange/Lavender mounts—"Hildreth & BURGE Photos" in negative—c. 1883-1884
Johnson's Canon, A.P.R.R.
SEDGWICK, PUBLISHER,
Rocky Mountain Scenery, Prof. S.J.
NEWTOWN,
Ayers Saw Mills. Flagstaff. Arizona. mounts-1876.-Taken from manuscript captions on verso
Aznce City. Arizona.
ARIZONA VIEWS,-BY-/Charles O. Farcict, ....
Globe City.

Unidentified Arizona town.

Olaf P. Larson, Stereoscopic./Moscow,
Idaho—c. 1895—manuscript and printed captions
Looking West over Bisbee, Arizona. (one variant) *GRAND CANYON OF:* THE COLORADO RIVER, VIA WILLIAMS, ARIZONA. PHILLIPS, PHOTO.—caption size—white mounts—c. 1890-1895
Two unidentified views of the South Rim of the Grand Canyon.
PHOTOGRAPHED & PUBLISHED AT SANTA FE, N.M./PHOTOGRAPHED AND PUBLISHED AT SANTA FE, N.M. (attributed to G.C. Bennett or W. Henry Brown)—Yellow/white cabinet size mount—c. 1880—manuscript captions on recto
No. 154 The Moqui Ind town of Wolpi Arizona.
Hawin & Co.—WORLD SERIES— Chromolithograph stereographs—white mounts—copyright 1905 110. Moki Indian House. A.W., American Scenery—c. 1870 or c. 1880
Cathedral San Xavier, Arizona. Standard Series—white mounts—c. 1870 or c. 1880
2. — Pass through.
3. Apaches on the War Path.
—Orange/Cream Std. Size
mounts—1876.—Taken from T.H. O'Sullivan negatives.
ARIZONA. ILLUSTRATED BY C.R. SAVAGE.—recto PHOTOGRAPHIC SCENES IN UTAH, ARIZONA, MONTANA, IDAHO,/AND/WYOMING TERRITORIES, /Views of the Most Interesting Points on the Union Pacific, Central Pacific, and Utah Central Railroads, /GROUPS OF INDIANS,/AND PORTRAITS OF THE REPRESENTATIVE MEN OF UTAH. /TAKEN BY/C.R. SAVAGE,/PIioneer Art
GALLERY, /East Temple St., Salt Lake City, Utah. /verso—Green std size mount—c. 1870—printed captions
Mouth of the Black Canon of the Colorado River.
Views of the Great South West. /BY- /H.T. HIESTER, /Santa Fe, New Mexico.—Pale Green mounts—Cabinet Size—Manuscript captions—c. 1877-1878 Arizona Territory. Triumphal arch near Fort Defiance A.T.
VIEWS OF/Arizona Scenery/—AND
THE-/Apache Indians in their Native Wilds./Photographed by J.C. BURGE. /Globe City, Arizona.—Orange/Lavender mounts—c. 1882—1883
The Apaches Bathing San Carlos Apache Scouts Carter's western Indian Stereoscopic Views,—std. size Light Green mounts— c. 1870 or c. 1880
Moqui, one of the seven Aztec or Moquis Pablas Indian Cities of the deserts of Arizona.
H.C. White—gray mounts and black mounts with gold lettering 12206. N.W. down the Granite Gorge from Plateau below Bright Angel, Grand Canyon, Arizona. U.S.A.—copyright 1905
12206. colorful River, foot of Bright Angel Trail, up to Zoroaster Tower. Grand Canyon, Arizona, U.S.A.—copyright 1905
12200. undergraduate Storm, 20 miles distant.—In Bright Angel Canyon, Grand Canyon, U.S.A.—copyright 1905
12210. The approaching storm, 20 miles distant.—In Bright Angel Canyon, Grand Canyon, U.S.A.—copyright 1905
12215. When the storm clouds hang low—across Grand Canyon, from Bright Angel. Ariz., U.S.A.—copyright 1905
12218. Woman stands at Grand View Point, Grand Canyon—copyright 1906
12219. Descending the Copper Mine Trail—showing distant North rim. Grand Canyon, Arizona, U.S.A.—copyright 1905
12220. The "Double Cirl" Copper Mine Trail, in the precipitous walls of the Grand Canyon, Arizona, U.S.A.—copyright 1906
12227. Angel's Gateway and Newberry Terrace from the Plateau, Grand Canyon, Arizona, U.S.A.—copyright 1906
12248. The dining-room. El Tovar Hotel, Grand Canyon, Arizona—copyright 1906

Underwood & Underwood copyright 1901
Buff mounts
Chief of the Kachina Dance at the Moki Village of Sichomovi, Arizona, U.S.A.

Gray mounts
The Plaza, "pueblo" of Mishonginovi, the second largest Village of the ancient ClifDwelters, Arizona, U.S.A.
A cattle round up in Arizona—"cutting out" the cows and calves
(2) To Red to San Francisco Mountains—a woody wilderness in sun-kissed Arizona—copyright 1903 (three variants).
Homes of a Vanished Race—Cliff Dwellings in Walnut Canon, Arizona—copyright 1903
A long buried Chapter in the Tale of the Ages— Petrified Forest, Arizona—copyright 1903
Descending Grand View Trail-Grand Canyon of Arizona—copyright 1906
6155—Moving a herd, Sierra Bonita, the oldest Ranch in Arizona—where 30,000 cattle range.
6162. A wilderness of sand—miles from human habitations, painted desert of Arizona
6181. Hopi Indians of Shonghopavi, Arizona doing the raindance
6188. Blanket Weaving—a Hopi at work, Wolpi, Arizona
6282. Beside the Colorado—looking up to Zoroaster Tower from Pipe Creek. Grand Canyon of Arizona—copyright 1903
38. Beside the Colorado—looking up to Zoroaster Tower from Pipe Creek. Grand Canyon of Arizona—copyright 1903 (variant of previous)
6156—Among the 30,000 cattle at Sierra Bonita ranch, roping a yearling, Arizona

Keystone View Co.—gray mounts—copyright 1906
6726. Grand Canyon of the Colorado as seen from Grand View, Arizona, U.S.A.

Keystone View Co.—Underwood reprint from c1900-gray mount
47V33481—Arizona Cowboys Gathering for the Noonday Rest
Kelley & Chadwick—photographer—E.W. Kelley—gray mounts—copyright 1906

American Stereoscopic Co.—gray mounts—c. 1900
Trailing through the Grand Canyon of the Colorado, Arizona, U.S.A.

Unidentified Flagstaff publisher—gray mounts
28. San Francisco Peaks in winter, Flagstaff, Ariz. (attributed to W.F. Stuart, c. 1902-1906)
94. Flagstaff, Ariz., from Lowell Observatory (attributed to Calvin Oxbon. Negative taken in September 1895)

The Universal Photo Art Co., C.H. Graves. Publisher—Buff mounts—c. 1896-1904
3363. Arizona, The Cow-boy's Home

COPYRIGHT 1906 BY/KOB BROS./GRAND CANYON, ARIZ.—gray curved mounts—printed captions (Courtesy David R. Delling, Evergreen, Col.)

(Continued on page 30)
Stereo Emeralds

A Look at Nineteenth Century Irish Stereo Views

by Joseph Henggeler as told to Laurance Wolfe
Native-born and foreign photographers combined to freeze a grand portrait of 19th century Ireland on stereoscopic glass plates and film. The exposure given through the stereoscopic medium resulted in stereo view gems of the Emerald Isle that are still being collected and admired.

Ongoing research, detailed in a recently completed paper, finds nearly two dozen individuals and firms who produced stereo views of Ireland. There are findings also of marketing deals, trade agreements, and mergers—as well as the inevitable piracy that clouded the stereo field wherever the three-dimensional art was introduced.

The basic elements of the research relate to flat mounts of Ireland. They will be covered here while curved mount coverage must wait until present research is completed.

Major producers of Irish views on flat mounts included, first and foremost, The London Stereoscopic Company. Others, by photographer, publisher, or product titles, (or cloaked in anonymity) were: The Scenery and Antiquities of Ireland, a beautiful early Irish set (circa 1850-1860); “The Donegal Photographer”; William Despard Hemphill; James Robinson; E. & H. T. Anthony; G. W. Wilson; H. Petschler & Co.; William Sedgefield; Hudson’s Irish Scenery;

William England was dispatched to Ireland on behalf of London Stereoscopic Company in 1858. The author believes the top-hatted gentleman is England. The London Stereoscopic series has several views of this man in various Irish places. Note that the sidewheeler drifted a bit while the camera was being shifted in the sequential pair.
and Andrew Duthie. In addition, the half dozen or so photographers who each produced only a handful of Irish views, as well as the "Eblana Complex" (author's coinage) certainly must be examined by anyone seeking the complete history of Irish stereography.

The 1860 London Stereoscopic Company catalog first mentions views of Ireland. Twenty-three views were listed and there is agreement among collectors that these were probably taken in 1858. The company endorsed their own views as being "the finest ever produced, of this beautiful and world renowned scenery."

The catalog—although American-oriented, named Irish views ranging from "Sackville Street—showing Nelson's Monument, Dublin." to "View in Enniskerry, showing the Sugar Loaf Mountain" to "The Lodge, Entrance to same." William England has been credited as the stereophotographer.

Identifying London Stereo Company's views is sometimes a difficult exercise. For one thing, the familiar LSC blindstamp was embossed only on views sold through the company's own outlets. In addition, non-LSC views sold in their outlets also bore the blindstamp. About 60 percent of LSC Irish views, therefore, are not LSC-embossed. And any number of other makers' Irish views carry the blindstamp.
"View in the Devil's Glen, County of Wicklow." One of series of "The Scenery and Antiquities of Ireland." This view unnumbered although there is space designed for a handwritten number. Complete set is about 100 views. An early series.

Probably the most reliable means of identifying London Stereo Irish views is by referring to the four main formats employed by the company over a period of about ten years:


2. Most Familiar Views (Early '60's to late in decade) Mount still flat color, with a brownish tint. Label affixed to rear and downgraded to newsprint quality. Not numbered. Any of nine border designs on the outside edges of the label. Varying combinations of title, label, ink color, and border were related to the company's pricing of their wares.

3. The Dublin International Exhibition (1865) Francis York stereographed this event for LSC. About 100 views—mostly of statuary and buildings—were published. Mounts are enamelled yellow, square-cornered, with printed titles under the right-hand image. These views were numbered. LSC also published unnumbered views of Ireland's more famous landmarks. These were under the Dublin Exhibition imprint with paper labels affixed to

"Slieve League & Cliffs, from Malin Head, Co. Donegal." This specimen, tinted with great care, is some of the excellent work of an unnamed, unknown Donegal photographer and is numbered 295-297.

4. Post-Exhibition Views (1865 and forward) London Stereoscopic Company offered new Irish views with their name on the front of the mount. The stock remained enamelled yellow. Labels again were supplied by an outside source.

The Scenery and Antiquities of Ireland, a set whose publication probably occurred from the late 1850’s to the 1860’s, contains in the neighborhood of 100 views. Numbers were sometimes present, sometimes not. Exquisite tinting characterized the series of distinctive Irish scenes. A large label on the back provides easy identification.

“The Donegal Photographer” (1858-1865), a name applied by this collector to a quite large and long running series. A favorite series because of its early origin, quite beautiful tinting and exemplary documentation of the Irish common people. Photographer and publisher are unknown. Introduced originally as a flat colored cream mount with small arched images, it evolved into a mint yellow mount with larger arched images and, finally, it appeared on a chrome yellow stock with square images.

The name of the series relates to the man who chose to make images of lightly-populated County Donegal—not often the target of the

“Southwest portion—Castle of Cashel” is the hand-written notation on the back of this view. William Despard Hemphill, a physician who was a Sunday stereographer, spent much time capturing views like this in the vicinity of his home town, Clonmel.
professional photographer. The “Donegal Photographer” and his efforts to provide wide and thorough coverage to the area suggests that he was Irish, with headquarters, probably, in Belfast. There were at least 300 views produced by this stereo lensman whose down-to-the-oulde-sod views of Donegal and its common people were among the first such views.

William Despard Hemphill (1857— ) is a departure from the early commercial stereographer. His chosen profession was medicine. He dubbed himself a “physician’s holiday” photographer. A native Irishman, his home was Clonmel. He was especially interested in photographing in stereo the ruins around his home town which drew so much interest that he published a book with some 80 tipped-in stereo views. Descriptions on views published singly were in longhand, but no maker identification appeared. Often a gentleman in top hat appears in Hemphill views. The

“Irish jaunting Car” is the hand-written title on the reverse of this view by Douglas. “Irish Scenery” label pasted over Scotland imprint suggests there was an Irish-Scotch connection in the stereo world of the nineteenth century.

Ruins of Cashel of Holy Cross Abbey are most often seen. These views date to 1857 and 1858.

James Robinson (1853-early ’60’s) produced genre works like Scenes of Irish Life and “Death of Chatterton,” the latter an infringement of a well-known painting which caused Robinson to be hustled into court. NSA member Rusty Norton’s research on genre artists identified Robinson’s trademark—framed with simple lines and a shamrock leaf in each corner. Other photographers whose work he may

have bought or pirated appeared over his sticker decal.

E. & H. T. Anthony—Irish Views—scarcely more than a dozen scenic views acquired from an unknown photographer and probably taken around 1860. Frequently these views have revenue stamps affixed. Inland parts of Ireland that were infrequently photographed in the early years appear in these views and, therefore, provide the set with some significance. Anthony labels on the back identify the views.

G. W. Wilson (1857-1862) produced superb stereo views of his native Scotland, and of England, then matched these with his outstanding renditions of the weird moonscape-like area known as "Giant's Causeway," in Ireland. The Causeway is a region of basaltic columns breaking above ground at the ocean's edge. His views in Ireland (1857) were taken around 1865 and capture the unusual scenery of the Causeway area as no other stereophotographer of that area ever has.

H. Petschler & Co. (1858-1865) A series number in the 800-range is the easiest way to identify the product of this firm, although the superb quality of the views (which include urban and country scenes) immediately catches the eye of a veteran collector of British Isles stereos. Approximately 100 Irish views came from this firm, whose large label, unless detached by time, is easily recognized. Darrah has written that "Petschler deserves much greater recognition."

"Queenstown, Cork." H. Petschler & Co. produced about 100 Irish views of superior quality. (Large label on back with company name.) Number 800.
William Sedgefield  
Research on Sedgefield’s Irish views has been limited and there is only one specimen in the at-hand collection. This was identified by NSA President Tex Treadwell through the small strip label with border, numbered and printed in purple ink. The low number on this view and the scarcity of Sedgefield Irish views confirms the belief that the series was small.

Hudson’s Irish Scenery  
Around 450 to 500 titles were issued under this banner by stereophotographer John Hudson from the early 1860’s to 1872. Hudson was a practitioner who had no reluctance to shoot and re-shoot until he achieved what he set out to do, namely produce the best possible Irish scenic views. Absence of people in his views is a point critics have been quick to note, some even suggesting that this indicates a certain insensitivity. At any rate, smaller architectural treasures and scenery around Killarney, where he settled in the late ’60’s, comprise nearly half of his published output. The Ireland research paper, available on request (see end of article), makes a case for Hudson being from Scotland.

The numbered Hudson’s Irish Scenery series was published from about 1862 to 1880. Early on, a yellow mount was used. Views near the end were on a Kelly green stock. Image width increased and the shape changed from arched to square and back to a stylized arch/square combination over the two decades.

Andrew Duthie (1865-1875)  
Based in Glasgow, this publisher brought out Views in Wicklow; Views in Dublin; and Views in the Giant’s Causeway, as well as two or three letter press books which contained views of Ireland by John Hudson, presumably, and some by other photographers. The Wicklow, Dublin, and Causeway series each included a dozen views, similar in subject matter to the book views, and with numbers generally paralleling the book plate numbers. Duthie views are easily identifiable. A large blue paper label covers almost the entire back of the mount. The same label has been found on Hudson’s Irish Scenery, New Series/Views of Ireland, and New Series/Irish Scenery views. This overlap cannot be explained.

A stereographer responsible for some of Duthie’s published views was Frederick Holland Mares. Mares took Dublin and Wicklow views published by Duthie and is the unmentioned photographer of many of the numerous views on yellow mounts which were later to appear as part of the “Eblana” work. Mares exhibited at the 1865 Exhibition and received many plaudits for his landscapes.

Lesser Known Photographers  
A chart showing lesser known Irish stereophotographers appears below.

<table>
<thead>
<tr>
<th>PHOTOGRAPHER OR SERIES</th>
<th>LOCATION</th>
<th>DATES OF ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Lawrence</td>
<td>Dublin</td>
<td>1860-1870</td>
</tr>
<tr>
<td>H. Yeates</td>
<td>Dublin</td>
<td>early 1860’s</td>
</tr>
<tr>
<td>James Magil</td>
<td>Belfast</td>
<td>1870’s</td>
</tr>
<tr>
<td>H. L. Kilgore</td>
<td>1870’s</td>
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<tr>
<td>Valentine Blanchard</td>
<td>Scotland</td>
<td>1860’s</td>
</tr>
<tr>
<td>Series “In/Ard.Bl fst.”</td>
<td>Belfast</td>
<td>1870’s</td>
</tr>
<tr>
<td>James Simonton</td>
<td>Dublin</td>
<td>1860’s</td>
</tr>
<tr>
<td>John Mack</td>
<td>Coleraine</td>
<td>late 1860’s</td>
</tr>
</tbody>
</table>

“The Friar’s Grave at Innisfallen Island.” No. 7 of Hudson’s Irish Scenery. Hudson was a patient stereographer who made as many exposures as it took to get top quality results. This view appeared later as part of “Poulton’s Irish Scenery.” John Hudson may be the gentleman in the picture.
This negative of "Westmoreland Street, Dublin," was used for views that appeared under at least four different banners—"Views of Ireland, New Series," "Gems of Irish Scenery, The Eblana Series," "Irish Scenery," "Irish Scenery, New Series," and anonymously. Formats differed but all four used the same strip label on the back.

The joining of many photographers’ and companies’ views into The "Eblana Complex" (author’s designation) in Ireland is analogous to the absorption of other companies and subsequent publication of their views by Keystone in the United States. The complex originated with two men: Mares was a contributor. Others probably were Simonton and Robinson. The complex eventually incorporated 3500 views marketed under titles such as "Ireland," "The Lakes of Killarney," and "The Giant's Causeway." Efforts were made to localize titles, within the country. "Ireland," therefore, sufficed for the United States and other foreign outlets. Sales of views labelled "The Lakes of Killarney" were through stores in the Killarney locale. "Giant's Causeway" labels were affixed to views sold in the Causeway area. These were the same views labelled "Ireland" when sold overseas.

Identification of the various series of the complex:


2. Yellow mount w/small, vertical label (1864-1870). Original negatives probably turned over to a large firm, possibly based in Scotland.


4. New Series/Scenic Production had deteriorated. Views were made to localize titles, within the country. "Ireland," therefore, sufficed for the United States and other foreign outlets. Sales of views labelled "The Lakes of Killarney" were through stores in the Killarney locale. "Giant's Causeway" labels were affixed to views sold in the Causeway area. These were the same views labelled "Ireland" when sold overseas.

For more information, the author’s research notes cover Irish views in greater detail. The ten-page, single-spaced document is available, without charge. SASE to Joseph Henggeler, Box 1298, Fort Stockton, TX 79735.

ARIZONA STEREO: AN UPDATE

(Continued from page 21)

Jacob's Ladder. 2255 Feet Below the Rim. Grand Canyon, Ariz.


"After the Storm" Grand Canyon, Ariz.

Cape Horn, 644 Feet Below the Rim. Grand Canyon, Ariz.

The "Cork Screw" on Bright Angel Trail, 4100 Feet Below the Rim. Grand Canyon, Ariz.

Kolb Bros.—Stereographs on standard size flat buff mounts or cabinet/std. but not mounted—caption in negative— lots of variants—1911 river trip—Views of Wyoming, Utah and Arizona

In the Rapids.
LIFE AFTER TWO EXPOS
FOR A PAIR OF 3-D FILMS

by Don Marren

If you missed visiting Expo 85 and Expo 86, you'll be happy to learn that two of the 3-D films shown at these world's fairs are currently getting a new lease on life.

"We are Born of Stars," the Omnifax film shown at Tsukuba (pronounced scuba with a short u), Japan, in 1985, has already proven to be a major hit in several U.S. cities last year with more openings planned for this year. Originally shown in the Omnimax dome-screen format at the Fujitsu Pavilion, the 10-minute, single-projection anaglyph 3-D film is now also being presented in the Imax vertical-screen format in many cities. It shouldn't be missed! High-resolution computer graphics involve the audience with an accurate picture of how atomic nuclei are formed in stars, how atoms become molecules and how molecules become the complex structures of life.

The film was so popular at Expo 85 that only a fraction of the people who wanted to ever got to see it. In order to make it available to a wider public, Fujitsu Limited opened a temporary Omnimax theater near its plant in Osaka to show the film. Eventually two other Omnimax theaters in Japan played it. Since then, the film has completed runs in Washington, D.C., and Seattle, Washington. Currently, the film is being shown in the Imax/Omnimax network of theaters in the following cities: Las Vegas; Los Angeles; Huntsville, Alabama; Hutchinson, Kansas; Tijuana, Mexico; and Bradford, England. Opening dates scheduled at press time include San Diego on April 1 and Spokane on May 1.

"We are Born of Stars" is also booked at Ontario Place in Toronto during the Canadian National Exhibition (CNE) from Aug. 19 to Sept. 7.

Ontario Place, which is located on Toronto's harbourfront adjacent to the CNE, will be the third home for "Ontario-Oh!", the 70mm 3-D film hit at Vancouver's Expo 86, from May 14 to Sept. 7. (David Mackay's imaginative multi-image film is currently being shown at Science North in Sudbury—a five-hour-plus drive north of Toronto.) The theater where "Ontari-Oh!" will be shown is presently undergoing major renovations for the special presentation.

As for "Transitions," the Imax 3-D double-projection film shown at Expo 86, its future remains in limbo. The Imax theater in Vancouver's Canada Harbour Place is the only one in the world equipped to present the film. When the theater reopens in May, conventional Imax films will be presented. Over 1.7 million saw "Transitions" at Expo last year and, hopefully, many more will get the opportunity to experience the film at future showings. We'll keep you informed.

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A WORKING LIST OF WESTERN PHOTOGRAPHERS

by John Dennis

The third edition of Checklist of Western Photographers—A Reference Workbook is currently available to collectors or students of the history of photography in the West. The soft cover, 105-page book is a "collaborative work-in-progress" aimed at eventually listing most of the photographers of the American West. As a working list, only the photographers' names, primary locations and estimated dates of activity are given. Photographers are listed by state, with 22 western states included plus "Indian Territory" and "Traveling Photographers."

The chief contributors to the list are Jean Rosenbloom of Los Angeles, Richard Rudisill of New Mexico, the late Terry Mangan of Colorado, and Carl Mautz, who produced the book. Following each state listing of photographers is a page or so of lined space for notes and the reader's own additions to the list. In his introduction, Mr. Mautz asks that readers "... use this reference work extensively, marking all sorts of interesting annotations on it so that your copy too will become collectible some day."

The book is priced at $12.00 from the Western Photographic Collectors Association, PO Box 4294, Whittier, CA 90607. Or, write to Carl Mautz, Box 514, Renaissance, CA 95962.
After nine years of circulating folios without incident, luck ran out in 1986 for the print circuit. Two regular folios and the limited-route-list 'Speedy' folio disappeared in the mail. They have been restarted but the loss is disturbing both for the missing viewcards and the time required to get them fully in operation again. More disturbing is the thought that this may be an indication of things to come. Someone once said that if you see a rat around the barn in the daytime, there must be a thousand out at night. One wonders if this heralds a deterioration of the postal service. Trouble seems to increase as one enters the larger metropolitan centers. I have read in Coin World, the numismatic weekly newspaper, of complaints of lost packages becoming increasingly common. Even insured packages were reported to be equally vulnerable and some dealers were in a quandary as to what to do when they depended on mail orders. It is hoped this doesn't mean what it suggests. Some recommend using United Parcel Service. But their locations are often inconvenient and I know of packages lost by UPS. It is just a risk we must accept to enjoy the enormous pleasure of belonging to a stereo postal circuit. We can only hope that the risk doesn't get worse and that the folios resume safe journeys.

Illustrated this time are stereo views of two well-known entertainment figures. The eternal comedian and song & dance man, Bob Hope, was in Seattle in August of 1985 promoting the book Confessions of a Hooker, My Lifelong Love Affair with Golf when stereed by Wil Metcalf of the print circuit. Hope has done everything feasible in show business since his start long ago in vaudeville and is still going strong halfway through his ninth decade. He was married many years ago in Erie, PA, where I am writing this... a union that has endured all of the strains and success of his career.

Bill C. Walton, our military stereo-historian, was on hand at Fort Benning, GA, as actress Patty Duke checked out the controls of a UH-1H helicopter while preparing for her part in the CBS-TV movie A Time to Triumph. Miss Duke played a soldier, Concetta Hassan, who became a helicopter pilot. CW3 Mary Koester was Duke's aviation technical advisor for the film. Drill Sergeant SFC Michael Pierce was her general military subjects advisor. Apparently Patty liked his advice because they were married about seven months after the movie was completed. I thank Patty for the many hours of pleasure her work has given us, starting with her childhood role as Helen Keller.

Folio Secretary Vance Bass has released the voting results for 1986 for the Beta Circuit. Members who choose to vote award first, second, and third places to their choices among the entries in the folio at that time. These votes are scored on a 3-2-1 basis and totaled at the end of the calendar year. Since the folio makeup is constantly changing no two members vote on exactly the same list of entries. But it does give an indication of the general response to one's work. Newer members, of course, take about a year to become fully involved in all of the folios. Competition is not the purpose of...
Beta Circuit 1986 Voting Results

<table>
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<tr>
<th>Name</th>
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<tr>
<td>Robert T. O'Brien</td>
<td>79</td>
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<td>David Hutchinson</td>
<td>79</td>
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<tr>
<td>W. R. &quot;Russ&quot; Young</td>
<td>70</td>
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<td>F. Scott Mathews</td>
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<tr>
<td>Alfred Paterson</td>
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<td>Richard Vallon, Jr.</td>
<td>51</td>
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<tr>
<td>Edward G. Currier</td>
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<td>Rebeccs Ratcliffe</td>
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<td>Pat Wilburn</td>
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<td>Robert Kruse</td>
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<td>Harry Newman</td>
<td>29</td>
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<tr>
<td>Robert Talbert</td>
<td>25</td>
</tr>
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</table>

Most Popular Slides

"Very Lucky Day" (Ruffy)
"Half In The Bag" (Ruffy)
"Through The Mist" (Mathews)

Print Circuit 1986 Voting Results

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<th>Name</th>
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<th>3rd</th>
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<td>Bill Walton</td>
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<td>Nancy Sobottka</td>
<td>104</td>
<td>14</td>
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<td>9</td>
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<tr>
<td>Brandt Rowles</td>
<td>104</td>
<td>10</td>
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<tr>
<td>Wil Metcalf</td>
<td>95</td>
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<td>Ray Bohman</td>
<td>81</td>
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<td>John Dennis</td>
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<td>Terry Wilkerson</td>
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<td>Quentin Burke</td>
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<td>Eric Scott</td>
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<td>John Waldsmoth</td>
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<tr>
<td>Robert Kruse</td>
<td>51</td>
<td>7</td>
<td>5</td>
<td>4</td>
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</table>

Favorite Views:
1st (Tie)"And Yet Another Tree" (Nancy Sobottka)
"Moth Antenna" (Bill Patterson)
"Aphid Eye" (Bill Patterson)
2nd "Magnesia Springs Again" (Brandt Rowsles)

Speedy Folio 1986 Voting Results

<table>
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<th>Name</th>
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<th>2nd</th>
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<td>Bill Walton</td>
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<tr>
<td>Robert Kruse</td>
<td>35</td>
<td>5</td>
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<tr>
<td>Bill Patterson</td>
<td>33</td>
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<td>Brandt Rowles</td>
<td>31</td>
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<td>4</td>
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<tr>
<td>Ralph Talbert</td>
<td>29</td>
<td>3</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Favorite Views:
1st "The Brothers" (Wil Metcalf)
2nd "The Potter" (Robert Kruse)
3rd "The Fly" (Bill Patterson)

The controversy aroused by the colorization of old black and white motion pictures has had a number of humorous aspects. Many silly statements have been heard from people who ordinarily speak in more rational terms. The usually reasoned remarks of film critic Gene Siskel turn to hysterical raving against the very suggestion of tinting "old masterpieces." It's odd, but I never heard him deplore showing color films on black & white TV sets, cutting movies up to insert commercials, removing footage and even adding footage (THREE INTO TWO WON'T GO) and the inserting of three of the most destructive words strung together in this century. . . "Edited for Television." Maybe the comic (?) strip Doonesbury was closer to the mark when it found the confusing of movies with art to be a puzzlement.

I have so far seen five fine old movies, all favorites, in colorized versions, and I believe all were better for it. Of course, the technique can be improved . . . but what can not be improved? If it gets them out of the vaults into which they have been exiled, colorization will have served old movies well indeed.

Stereo views have been colorized from the very start. I have never heard serious objections to it in principle. Some very good colorists were employed for the best work such as Annette Karge who, I believe, worked for both Keystone and Three Dimension Company. Of course, a bad tinting job is a horror, destroys the picture, and should not be done at all. The blob-tinting of some old commercial views is disgusting. . . why they would have ruined such pictures is beyond comprehension to me. I can only infer that it illustrates the strength of the desire for color—albeit run amok.

I make black & white stereo views and I colorize a lot of them. A well-tinted stereo view, I believe, has a charm of its own and differs from other color images. My method involves the use of oil paints. A properly tinted viewcard may require three hours or more of

(Continued on page 35)
"The three months from June 25 to September 17, 1787, represent perhaps the most critical moment in American history, for it was during those months that fifty-five men met in Philadelphia to create the document that has since become the cornerstone of our society and democracy—the Constitution."

Decision in Philadelphia—Collier & Collier

Come to Philadelphia during its celebration of the 200th birthday of the United States Constitution. The NSA Convention, being held June 27 and 28, 1987 will be headquartered at the George Washington Lodge located just off the Pennsylvania Turnpike in King of Prussia, Pennsylvania, three miles from Valley Forge National Park.

King of Prussia, originally named Reeseville for the Welsh family that owned the land, changed its name to that of the local inn, which is still standing today. This suburb of Philadelphia has attracted many nationally-known research and industrial plants, and as a result, numerous hotel, motel and convention facilities. An immense shopping complex is located just across the road from the George Washington Lodge—The Plaza at King of Prussia and The Court at King of Prussia. These two adjoining indoor shopping malls contain seven major department stores, 219 retail stores, 14 restaurants and 30 fast food outlets.

The events scheduled at NSA’s Annual Conventions are noted for their quality. This year is no exception. The two day Trade Show, the world’s largest sale of stereo-related photographica, is being conducted by Russell Norton, an experienced dealer from New Haven, Connecticut. Eight special illustrated lectures, covering both the antique and contemporary aspects of stereo photography, have been arranged for and are being managed by Mel Lawson of Arlington, Virginia. (See the January/February Stereo World insert for a description of these outstanding Programs.) The Competitive Exhibit, a popular attraction of each year’s Convention, is being conducted by Margaret Bartlett of Washington, D.C. Here is your chance to display a part of your prized collection and possibly win an award. The Annual Spotlight Auction, scheduled for Saturday night, should be the highlight of the Convention. It is being conducted by the experienced team of Robert Duncan of Holyoke, Massachusetts and Dave and Robin Wheeler of Norfolk, Connecticut.

A unique feature of NSA Philly ’87 is just a few minutes away at Eastern College in St. David’s, the site of the Oliver Wendell Holmes Stereoscopic Research Library. Bill Zulker will be providing a van from the College to shuttle members to the Library during the Convention. NSA Librarians Ray and Marjorie Holstein will be available to answer questions. You can sign up for a visit at the NSA table at the Trade Show.

As in past years, a Registration Fee will be charged to help defray meeting costs and to provide general funds for special programs throughout the year. This Registration Fee not only includes admission to all events over the two day period, but also provides for an identification badge incorporating a hologram of an eagle in its design.

To get the Convention off to a good start, the George Washington Lodge will close George’s Tavern to the public Friday evening June 26th. This comfortable meeting place located just off the lobby at the Lodge will be reserved all evening.

The historic King of Prussia Inn, established perhaps as early as 1709, eventually gave its name to the community around it. During the revolution and the encampment at nearby Valley Forge, the inn is said to have hosted both American and British officers. Remodeled a number of times over the years, the building still has some original furnishings, doors, mantels, and a stone sill hollowed to a depth of several inches by the footsteps of two centuries. Feb. 1987 stereo by Raymond Holstein.
Now in the local historical society, this sign hung at the inn for many years and shows Frederick the Great of Prussia, for whom several taverns were named in the 18th century.

For the exclusive use of NSA members. A cash bar will be provided. Registered members can pick up their identification badges and the schedule of events for the weekend of activities there. Meet your fellow members for an evening of informal talk about your special interest in stereo views, be they antique or modern. Bring along a few of your favorite views and share your collecting experiences with each other.

For those members and their families who plan to stay over on Monday, June 28th, Centipede Tours, rated “Best in Philly” by Philadelphia Magazine, has created a special guided tour of historic Philadelphia. In addition to Independence Hall, the Liberty Bell, Benjamin Franklin’s Print Shop and Elfreth’s Alley (the oldest continually occupied residential street in the United States), they will see the Merchants Exchange building where the Langenheim brothers opened their first Daguerrean studio in 1842 before going on to introduce stereo views commercially to America (See Stereo World March/April 1979), and Admiral Dewey’s flagship, the Olympia, docked at the site of Penns Landing, where William Penn arrived in the New World in 1682 (See Stereo World November/December 1976). A chartered bus will transport the group from Convention Headquarters to the historic area. The 3-D picture possibilities will be enhanced by the presence of the trained guide, dressed in Colonial costume. See the enclosed Registration Form for additional details. Sign up early.

Full details on the hour-by-hour schedule of events, maps, brochures, and complete information on self-tours of the local attractions will be provided in the information packet you will receive upon arrival at Convention Headquarters. These self-tours include Valley Forge National Park, a walking tour of the historic area of Philadelphia, a tour of Amish country, information on how to reach the Factory Outlets outside Philadelphia, and Atlantic City, New Jersey, with its famous Boardwalk and casinos.

Keep in mind that Philadelphia is centrally located just a few hours from Washington, D.C., and New York City, so make NSA Philly ’87 part of your vacation plans this year. See you there Friday evening, June 26th.

THE SOCIETY
(Continued from page 33)

fussing by this procedure. Some black & white views are magnificent as they stand. Others benefit considerably from proper tinting. Most landscapes are disappointing in monochrome and fail to capture the grandeur that inspired the photographer. Visual perception is tricky and much of it is in the head. I have found that a “hint of a tint” sometimes is all that is needed to make the brain “see” colors beyond what are actually there.

Why not just use color film? I can economically do the whole process in B & W photography and enjoy doing it. Usually I like the results and it is all my work. One might just as well ask why people race sailing boats when a motor would get them there faster. Fortunately, in a hobby one can do what one wants to do. Viva colorization!

Society Membership
The Society always needs new viewpoints. Maybe your camera angle is the one we are looking for in 1987. Contact the Corresponding Secretary, Jack E. Cavender, 1677 Dorsey Avenue, East Point, GA, 30344.
Gerard Brown has a batch of views on gold cards, most of which depict life in a small southern town. In some, blacks are depicted as field workers and as servants and laborers. The only one that is labeled bears the words "Coosaw Mills." There is a Coosa River in Alabama and Georgia that might be relevant. Anyone have any ideas?

Sherry Lovato would like to have some information about the International Stereoscope Exchange, No. 3 Hinokicho, Akasaka, Tokyo, Japan. She has quite a few views with their imprint, mostly of subjects in Japan. The front of this card has two separate tinted prints (showing five Japanese women on a bench) pasted within an embossed brown frame with "NO. 40" printed at the center top. Besides the two types of Japanese titles seen here in the lower right of the back, a paper strip is pasted vertically in the center.
Anyone ever hear of this organization, or read Japanese?

Carl Mautz wonders if anyone can furnish information about an amateur view on a gray card taken in a tropical location with a dark-skinned population and a light-skinned visitor. Pencil notation on the back reads "Having our picture taken on village lawn, Namosi Viti Levu." Are those last three words the name of some exotic location? (Another view by the same photographer shows a Tibetan woman by a building in Darjeeling, India, so he must have been quite a world traveller.) Ray Walker has a gold card featuring the "Soldier's Monument" according to handwriting on the back. This looks like the sort of thing that might still be standing. Does anyone know where it is located?

Send information on these or past unknowns to Neal Bullington, 137 Carman St., Patchogue, NY 11772.
BICAMERAL ART AND THE 3-D ZONE

by Ray Zone

3-D has long suffered the unfortunate stereotype of being a "gimmick" and a fad. This cultural stigma overlooks a basic fact: 3-D is an art form for two eyes. Just as one requires ears to appreciate the art of music, it is necessary to have two functioning eyes to enjoy the stereo art.

The specific dynamic of 3-D art is parallax. As a stereo conversion artist, my job is to create a binocular stereogram from a monocular image, investing parallax into the provided artwork. My primary tools are graphic and photographic manipulations and it is an extremely challenging and rewarding endeavor that requires multidisciplinary knowledge of graphic production, printing technology and color theory for anaglyph applications. Unique forms of salesmanship are also required to build a market for stereo conversion and to demonstrate its commercial feasibility.

Since 1982 I have been engaged in stereo conversion as both a business and an art form. I have produced 3-D conversions for many clients ranging from Walt Disney Imagineering to Colorforms Toys. It has been my great pleasure to work on the world's first 3-D mural, 3-D coloring books and to champion the anaglyph as a viable 3-D process for any graphic application large or small.

3-D comic books provided me with my first stereoscopic experience as a youngster and the production of new 3-D comics in the present day has occupied a great deal of my time. So far, I have converted twenty-eight different books to stereo for various publishers and have been fortunate to have the assistance of several individuals in this effort, primarily Tony Alderson, Jason Cardwell and John Rupkalvis.

The 3-D Zone series includes items about 3-D, as well as the stories. This includes some anaglyphic stereo photos, like this one from No. 1 showing artist Stan Lee of Marvel Comics blowing out candles on a cake celebrating Marvel's 25th anniversary at the 1986 San Diego Comic Convention. Anaglyphic art was well represented at the big (2,500 to 3,000 people) show in displays from Eclipse Comics, Ray Zone, Blackthorn Publications, and distributor Bud Plant. Stereo by Ray Zone.

Opening page to Dr. Jekyll and Mr. Hyde with original art by Wallace Wood and 3-D conversion by Ray Zone. This version of the classic tale was first published in 1950, and now appears in 3-D in The 3-D Zone No. 1 © 1987 Ray Zone.
Unlike the brief boom-bust cycle of the early fifties when 3-D comics first appeared, the market for 3-D comics today is holding fast and slowly building. One reason for this is that the average comics reader today is more mature and the distribution of comics is done on a non-returnable direct basis so that independent publication is flourishing. The other reason 3-D comics are still around is that I and my colleagues have spared no effort to make each book as amazing as possible in maximizing the parallax, the number of levels and the special effects that the reader sees.

The new 3-D comic books use retinal rivalry as a special effect in addition to parallax. Bicameral imaging, which utilizes different information in the two eyes, in concert with 3-D, is a new frontier for stereography. There are historical precedents, of course, with Wells' classic stereotest cards and the stereoscopic illusions of Joseph Jastrow created around the turn of the century. More recently, Georgia stereographer Richard Lindblom has done some very interesting bicameral paintings exploring 3-D and retinal rivalry.

The flashing and flickering effects produced by bicameral imaging are uniquely suited to the visual dynamism of comic books. Speed lines, exploding stars, ghost images and even two-step animation created by retinal rivalry can be found in such recent 3-D comics as Merlinrealm, the normalman annual, the Bizarre 3-D Zone and the Three-Dimensional DNAgents. The bicameral effects in all these books have been very well received.

To ensure the permanence of 3-D in comics publication I have started The 3-D Zone, a monthly series which will be the world's first comic line which is strictly 3-D. Each issue of The 3-D Zone will be a 32-page comic book retailing for $2.50 with four-color covers and printed on deluxe format English finish bright white paper. The first issue features a 26-page graphic novel adaptation of Dr. Jekyll and Mr. Hyde by the great comic book artist Wallace Wood that was originally published in 1950. Wood's art is well suited to the stereo medium, with high chiaroscuro and dramatic lighting and camera angles.

Each issue of The 3-D Zone makes use of the "Zonevision" 3-D process, a state-of-the-art conversion technique that often utilizes bicameral effects. Every issue will feature a special bonus of interest to the 3-D fan. Issue one, for example, features 3-D Funny Foto News with stereophotos of Jack Kirby, The Marvel 25th Anniversary Party and other comic book celebrities active in the field of 3-D comics today.

(Continued on page 41)
VIEWING A far simpler Duboscq design involved direct viewing of the lower image by the right eye, while two prisms brought the upper image to the left eye.

by Paul Wing

In his interesting summary, "Will Over/Under Take Over" (Stereo World September/October 1986), John Dennis takes an optimistic viewpoint which I find difficult to share. I would like to see any venture in 3-D become a great success, but this is one I feel is slated for oblivion unless some basic changes are made.

The idea of vertical viewing for pictures of great length such as panoramic views was first addressed by the Frenchman Duboscq 125 years ago. He invented two versions of a viewer shown in 19th century woodcuts. The recent appearance of this idea through the efforts of the German Company KMQ brings out some serious limitations in the application of the basic principle.

The KMQ approach uses a separate prism for each eye to simultaneously raise and lower the two images to fuse in the center in 3-D at a fixed distance (a point not always easy to find). For the book Fascinating Nature, the distance is about 20" and the movie version by TVLJ is about the same when using a 19" screen. In the book, each picture is 7" wide by 5 1/2" high. The result is a stereo view about 20% narrower than a 5-sprocket view in a Realist viewer.

All the pictures in the book are directly over one another for obvious esthetic reasons. This places the principal object in the approximate plane of the page and one must converge fairly substantially to see it. This is not necessarily objectionable, but it makes the picture look smaller, defeating one of the great advantages of good 3-D.

A more serious problem is the lack of focus correction for normal infinity. For myself and millions of others, a 20" viewing distance is a no-no without special glasses. Any general purpose viewer that is not focusable should have correction for a sharp image at normal infinity. The lense type lorgnettes for side by side pairs at least permit focusing. With prisms, a correction applied for a 20" viewing distance can only be used for 5 inch print vertical separation, yet the same viewer is
used for the calendar (13” spacing) or any other views issued by the company.

The larger the picture, the greater the viewing distance, the stereo effect remaining the same, i.e. mediocre. For smaller prints like those in the book additional magnification could be used to bring the viewing distance to, let us say, 12”, with a tremendous gain in stereo effect, but this would mean almost doubling the angle of the prisms which already shorten the vertical.

It is all best summarized by a review of the design of the vertical viewer designed by NSA member Bohumil Vanco (Stereo World September/October 1982). It is the only vertical viewer I have seen that really works! Here are the salient points:

1. The lens assembly is held in place just over 12” from the 9 1/2” wide by 8” tall prints (vertical separation 9 1/4”).
2. The left eye looks directly at the picture in the lid through a 12’ focal length magnifier.
3. The right eye through a double reflection rotates the picture into place without foreshortening.
4. Pictures are not mounted one over the other, yet they are very easy to view.

I have even chopped up an extra copy of Fascinating Nature and mounted pairs for this viewer with a great improvement even though they are undersize.

I have no quarrel with the idea of large size, high quality stereo pairs in full color. They are interesting to look at even in the flat. The KMQ (Zanders) calendar is a tour-de-force of the printer’s art and of macro stereo photography, but I show interested visitors 35mm transparencies in a decent hand viewer or by projection for a better 3-D view. Any attempt to use the system as presently designed for home television is a step backwards.

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**BICAMERAL ART AND THE 3-D ZONE**

(Continued from page 39)

Classic material from such major artists as Basil Wolverton, George Herriman (creator of Krazy Kat) and Ed “Big Daddy” Roth will appear in the pages of The 3-D Zone soon. A special issue titled ‘Hollywood 3-D’ will include stereo photos of Jayne Mansfield’s heart-shaped bathtub plus other Tinseltown arcana.

In September The 3-D Zone will present stereo conversions of stories from Zomoid Illustories a “new wave” comic I have been publishing in limited editions since 1982. One of the tales to be included is 3-D Jonestown by Tony Alderson, which was originally published in 1985 as the world’s first comic “in the Miracle of Freevision” and provided a tutorial for the “unaided fusion of side-by-side mounted stereographs!”

3-D Jonestown is a sardonic behind-the-scenes account of corporate events transpiring at the “3-D Megavision” company and is really a companion volume to The Battle for a Three-Dimensional World 3-D comic book that I wrote, Jack Kirby illustrated and Tony converted to stereo.

Another frequent feature of The 3-D Zone will be some of the “3-D effect” comics of the 1950’s, originally published in either four-color or black and white, redone into actual anaglyphic 3-D. The first to appear will be issue number 3 with ‘Picturescope Jungle Adventures,’ a coloring and story book with art by Jay Disbrow simulating the “coming-at-you” window effect of 3-D. This book will also function as a 3-D coloring book and directions for such use will be provided.

Sometime soon, using the video technologies of an ADO, a paintbox and Mirage effects generator, I hope to convert existing two-dimensional motion pictures to 3-D in much the same way I am converting comics material now. Until that time, anaglyphic 3-D will be keeping stereo interest alive in the pages of The 3-D Zone.

In July, 1986 Ray Zone was given a Special Achievement Award in the field of 3-D comics at the American Comic Book Awards, Atlanta Fantasy Fair. —Ed.
THE WORLD OF 3-D
SECOND PRINTING NOW AVAILABLE

Since its first printing in 1982, The World of 3-D: A Practical Guide to Stereo Photography, by J. G. Ferwerda, has been widely acknowledged as the standard text on the subject. It was published by the Netherlands Society for Stereo Photography, which unfortunately decided not to reprint the book when it sold out about six months ago.

Happily the author has finally made arrangements for the book to be privately published in a second edition by 3-D Book Productions of Holland (also the publishers of the View-Master illustrated book 3-D Past & Present).

The second edition is virtually identical to the first edition (only collectors will want to have both), but in a different color and with a different cover 3-D photo. There have been some minor revision and updating to the text and appendices, but basically very little was needed. This 300 page hard cover volume has over 245 illustrations (many printed as side-by-side stereo pairs). It starts out basic enough for the absolute beginner, but advances in logical steps to cover more advanced and diverse topics.

Subjects include: making stereo prints with an ordinary camera and how to view them; taking stereo pictures with stereo cameras; precision stereo mounting; stereo projection; advanced stereo mounting; special techniques; and a bibliography and list of 3-D suppliers worldwide.

As the Newviews Editor, I can easily say without reservation "If you buy only one book on 3-D photography, this should be the one." Two U.S. mail-order distributors currently import the book: A Photographers Place, P.O. Box 274, Prince St., New York, NY 10012, and Reel 3-D Enterprises, P.O. Box 2368, Culver City, CA 90231.

3-D MAIL-ORDER EUROPEAN STYLE

Nobody can accuse the folks at 3-D Foto World, the European 3-D mail-order catalog, of being timid in their promotion efforts. The glossy new 1987 catalog features a full color photo of the current Miss Switzerland on the cover. She holds a glittering blue & gold "3" and a red & silver "D" in her arms, and she appears again in a black & white stereo pair in one corner, extending the company logo through the window at us. 3-D Foto World has grown into a sort of European version of Reel 3-D Enterprises, but with much more emphasis on 3-D books, magazines and view sets.

This even extends to the inclusion of several "3-D pop-up books" with folded cardboard constructions of cameras, airplanes, computers, the White House, and Elvis Presley!

Also in the 35 page catalog are cameras, projectors, viewers, and holograms among the more than 300 items offered. Nearly every recent publication about or in 3-D published in English seems to be listed, along with a wild variety of books printed in side-by-side, over/under, and anaglyphic formats published and distributed only in Europe in the past few years. The company has also published a series of its own anaglyphic 3-D photo books and, more recently, a series of lorgnette viewed photographer-portfolios with 12 original photos each and individual introductions.

The catalog is in German, with prices given in Swiss francs and deutsche marks. According to the press release, the catalog is available free from 3-D Foto World, Postfach CH-4020 Basel, Switzerland.
THE NEW "NU-VU"

Stereo inventor Eugene Pryor has been designing, building, improving and marketing his nu3Dvu adjustable mirror viewers for over five years now, with inquiries and orders from around the U.S. and the world coming in at a steady but frustratingly slow pace. The relatively low sales volume has kept manufacturing costs per unit high, and prices of the precision, custom wood housing print viewers have gone up accordingly. In order to make a viewer with the same mechanism available at a more affordable price, a new model has been introduced featuring a mat board housing in the same shape as the wood housing, with the same elastic headband for hands-free use. (See Stereo World July/August '84, page 25.)

The new model is surprisingly sturdy and even though the alignment of the mirrors can be thrown off by a harsh twist to both sides of the viewer, the image returns to proper fusion as soon as you stop applying the strong-arm tactics. The front-surface mirrors and the adjustment mechanism are identical to those used in the wood housing model, and will fuse any side-by-side stereo pair from slides on a light box to prints of any size to pairs projected on a room-sized screen. Depending on the direction the central knob is adjusted, the viewer will fuse images positioned for either standard or cross-eyed viewing.

The one functional element the new model lacks is the handy snaps for attaching the elastic band to the sides of the viewer hood. The new model has slits in each side which the band threads through. Users who anticipate frequent removal of the headband may wish to glue velcro patches to the viewer and band for convenience.

Those who own nu3Dvu viewers also have at hand a quick (if rather bulky) means of fusing over/under stereo pairs. Using just one set of mirrors as a sort of periscope in front of one eye, you hold the viewer vertically and look backward through the lower set of mirrors with the knob facing away from your nose. Over/under pairs can then be viewed from any distance and regardless of whether the right or left image has been placed on top. Anyone who has suffered through the task of viewing an over/under book or video with a tiny plastic prism viewer will be impressed with the advantages of mirrors for this purpose and will probably start thinking of ways to fit an adjustable pair of mirrors onto some sort of glasses frame.

Current prices are $70.00 for the wood housing model and $45.00 for the mat board model, plus $5.00 shipping & handling for either model. For more information or a complete order form, contact nu 3-D vu Co., 71 East 28th Ave., Eugene, OR 97405.

WHEATSTONE VIDEO

The latest 3-D video system to surface in the technical literature comes from Weingart Inc. of Fort Wayne, Indiana. What makes the "3-D Stereo-Optic Imager" somewhat different from most other recent 3-D TV systems is the fact that it depends on the first concept of stereo viewing ever developed rather than any computerized image manipulation or complex projection schemes. In a modern refinement of Wheatstone's reflecting stereoscope, the Weingart imager uses a pair of mirrors at 45° angles positioned between two facing video monitors. The side-by-side images in these flat mirrors are directed toward two focused "projection mirrors" which in turn direct the images toward the focused "screen mirror." The separated and focused images are then reflected in a final "positioning mirror" toward the eyes of the viewer.

The combination of flat and focused mirrors allows the person using the system to be much further from the original images and mirrors than a classic Wheatstone (even one combined with lenses) would allow. The system mirrors not only guide but magnify the images, so that their size doesn't suffer from the greater distance. The mirrors are adjustable for varying image pairs or users' vision. Any type of separate image pairs can be used—video, rear projection or prints. Light loss through the system is said to be less than 25%.

Information about the imager is available from Weingart Inc., 14730 Lima Rd., Fort Wayne, IN 46818. (Thanks to Ron Labbe.)
THE LITERATURE OF STEREOSCOPY: 1853–1986

by Harold A. Layer

Stereoscopic literature is far more extensive than commonly realized. After collecting books on stereo for about twenty years, I have finally compiled a list of—perhaps—every English-language book with a major theme of 3-D that has been published. Not included are 3-D picture books, 3-D drawing books, holography texts, stereo tour guides (such as the Keystone Travel Series), and small pamphlets.* However, I am including all 3-D cinematography texts as well as major 3-D camera guides, hardbound and paperback. A list in chronological order seemed more useful for collectors and researchers and reveals years of greatest activity and development. This kind of bibliography has never been published before, and I would appreciate any corrections or additions. Write: H. A. Layer, AV/TV Center, S. F. State University, 1600 Holloway Ave., San Francisco, CA 94132. ("bib" means bibliography.)

1899 Photo Miniature No. 5: Stereoscopic Photography. NY: Tennant & Ward, 43pp., bib.
1903 Brown, T., Stereoscopic Phenomena of Light & Sight. London: Gutenberg, 100pp., bib.

Unfortunately, most of the above titles are available only from antiquarian bookstores or photographica collectors and dealers. Some recent books are available from the following: (Write for current lists.)
National Stereoscopic Association book service, 4201 Nagle, Bryan, TX 77801.
A Photographers Place, PO Box 274, Prince St., New York, NY 10012.
Western Photographic Collectors Association, PO Box 4294, Whittier, CA 90607.

Some out of print titles can be found in the catalogs from Fred & Elizabeth Pajerski, 225 West 25th Street, 4K, New York, NY 10001.

*For a bibliography on stereoscopic art and binocular perception, see my article: "Stereoscopy: Where Did It Come From? Where Will It Lead?" Exposure: Journal of the Society for Photographic Education, Vol. 17, No. 3: pages 34-48, Fall 1979*.

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**NSA REGIONAL NEWS**

Some changes in NSA Regions have occurred in recent months which are somewhat overdue for mention. The Northwest Region got a new director last year, despite the lack of that change showing up the last time our "Regions" map appeared. He is Thomas Wake, 3540 SW Rose, Seattle, WA 98126.

The new Regional Director of the Southwest Region (Northern Area) is Roger Alan May, Oakland 3-D Studio, 1200 50th Ave., Oakland, CA 94601.

The Central Midwest Region is currently in need of a new director and anyone interested (or anyone who knows of such a person) should contact Tom Rogers, 1111 12th St., Huntsville, TX 77340.

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**NEW REEL 3-D LOCATION**

Reel 3-D Enterprises, Inc., the mail-order company specializing in 3-D photography, products and literature, has moved to a new, larger location in Culver City, California. Formerly located in Duarte, the company finally outgrew its space at that location, so a larger one in Culver City was chosen.

The new address is P.O. Box 2368, Culver City, CA 90231, and the new phone number is (213) 837-2368.
May 3 (NY)
American Photographic Historical Society Photographic Fair, New York Penta Hotel, 7th Ave. & 33rd St. Contact APHS, Box 74, Delanco, NJ 08075.

May 3 (IN)
South Bend Camera/Computer/Video Swap Meet, South Bend, IN. Contact Roger L. Smith, PO Box 6486, South Bend, IN 46544. Call 219-259-2968 by 9:30 PM EST.

May 9 (WA)

May 10 (CA)
Bagnall's Anaheim Camera Expo, Anaheim, CA, 2271 W. Crescent Ave. Call 714-786-6644 or 714-786-8183.

May 16, 17 (CA)
Western Photographic Collector Association, 18th Annual Spring Trade Show, Pasadena City College, Pasadena, CA. Contact WPCA, PO Box 4294, Whittier, CA 90607. Call 213-693-8421.

May 17 (IL)
Chicagoland's Camera and Photo Show, Holiday Inn, 3405 Algonquin Rd., Rolling Meadows, IL. Contact Photo Show, Box 72695, Roselle, IL 60172. Call 312-894-2406.

May 17 (NC)
Southern Exposure Photographic Trade Show, Americana Hotel, Greensboro, NC, 1-40 at Rt. 68. Call David Hugget, 919-286-9740.

May 23, 24 (OH)
Ohio Camera Collectors Annual Camera Photofair, Radisson Hotel, 4900 Sinclair Road, Columbus, OH. Contact John Durand, 934 Spring Grove Lane, Worthington, OH 43085. Call 614-885-3224.

May 30 (CA)

May 30, 31 (OH)
Ohio Camera Swap, 88 Shadybrook Armory, Cincinnati, OH. Contact Bill Bond, 8910 Cherry, Blue Ash, OH 45242. Call 513-891-5266.

May 31 (CA)

June 7 (PA)
Delaware Valley Photographic and Collectors Association Spring Show, George Washington Motor Lodge, King of Prussia, PA. Contact D.V.P.C.A. Box 74, Delanco, NJ 08075.

June 13, 14 (TX)
Dallas Camera Show, Dallas, TX. Contact Don Puckett, 1106 Graham, Suite 206, Dallas, TX 75227. Call 214-824-1581. After 6 pm call 214-526-5387.

June 14 (IL)
Chicagoland's Camera and Photo Show. (See May 17.)

June 21 (CA)
Bagnall's Anaheim Camera Expo. (See May 10.)

June 26-28 (NSA event) (PA)

July 11 (FL)
FWCCC Camera show at the Clearwater YMCA, 1005 S. Highland, Clearwater, FL. Contact Rowland Reinthaler, 150 11th Ave. SW, Largo, FL 33540. Call 813-584-7853.

July 11, 12 (MI)
Detroit Area Summer Photorama USA, Southfield Civic Center, 26000 Evergreen Rd., Southfield, MI. Contact Photorama USA, 20219 Mack Ave., Grosse Point Woods, MI 48236. Call 313-884-2242.

July 12 (IL)
Chicagoland's Camera and Photo Show. (See May 17.)

July 19 (CA)
Bagnall's Anaheim Camera Expo. (See May 10.)

July 26 (NY)
## FOR SALE


**OLD KEY WEST IN 3-D**—A handsome 64-page book with viewer to enjoy stereographs of this fascinating island reproduced from United States and European stereographs in Key West from the 1870s to the 1920s with emphasis on the Spanish-American War. Single copy $14.95 plus $1.50 shipping and Florida sales tax if applicable from the Langley Press, 821 Georgia St., Key West, FL 33040.

**FREE** year-round photographic/stereographica search service. Send specific “wants.” Also buying magic lanterns, slides (wooden-framed), plus any related advertising, catalogs, posters. Highest prices paid! Loccisano, Box 5301, Lancaster, PA 17601, (717) 560-0639.

**KEYSTONE WWI** 100 set, less 2 cards, in excellent condition in book box, along with 442 page descriptive book. Best offer over $90. Bennett, 2700 Colcord, Waco, TX 76707.


**ANNOUNCEMENT** “Fine Antique Photographic” is now based in London, England. In order to fill your wants better please send a specific listing of the type views you collect. Since auctions are no longer possible sales will be through catalogs and private mailings. Contact: Roberta Etter, Hilton House, 22 Craven Hill Gardens, London W2, 01/262-8728.

**FOUR TDC SELECTRAYS** $13 each postpaid. One antique 8mm non-stereo Keystone Moviegraph projector $13 postpaid. Richard Orr, 6906 Western Ave., Omaha, NE 68132.

**THE RED WING VIEWER**, a fine stereoscope handcrafted in walnut, leather, brass, and glass. $78 includes stand and US shipping. For ordering or more information: Welch Village Woodworking, Rt. 2, Box 18, Welch, MN 55689, (612) 388-5304.

**MEMORABILIA COLLECTORS:** 3-D photos of Miss Liberty Centennial Celebration and a handcrafted Holmes-type viewer with a polished solid brass hood $29.95 + $3.00 UPS, G.H. Sergio, 760 Clawson St., Staten Is., NY 10306.

## TRADE

**FRENCH STEREO POSTCARDS** c. 1900/1910 (list on request) against any sort of stereo views. Tawiltzki, 148 Rue de Lourmel, 75015 Paris, France.

**WANTED**

**TOP PRICES PAID** for Colorado glass negatives & positives, stereo views, cabinets, CDVs and large photographs. Specialties: Locomotives, Trains, Transportation, Towns, Street Scenes, Mining, Farming, Expeditions, Occupational, Early Culture of Man, and Indians. David S. Digerness, 4953 Perry St., Denver, CO 80212.

**ILLINOIS AND MISSOURI** stereo views. Please describe and price or send on approval. Can use any Illinois town views except Chicago. Especially want views of Quincy, Illinois. Philip Germann, Box 195, Quincy, IL 62306.

**KOREAN PHOTOS**, any format. Also stereos of Japan, China, medicine-related, Oregon, esp. cities, towns and industry. John Sharrer, PO. Box 8542, Coburg, OR 97401.


**AUSTRALIAN VIEWS** wanted to buy or exchange for American photographers, e.g. Anthony, Watkins, Am. Stereoscopic Co. Prefer views of historical interest. Warren Smythe, 258 Cumberland Rd., Auburn, NSW 2144, Australia.

**WILL PAY $100** for stereo view titled in ink—Valley of the Flats, below Montgomery, probably a Duham or Chamberlain. Send xerox. F.B. Rizzari, 254 Marble Circle, Golden, CO 80401.

**SHAKER** people stereo views, real photos, snapshots, etc. Please send photocopy with price to Richard Brooker, 450 East 84th Street, New York, NY 10028.

**RUSSOJAP WAR**, boxed set or single views. Also views with children. Buy or trade. Phone 011-618-298-2240 or write Ron Blum, 2 Russey Ave., Oaklands Pk 5046, South Australia.

**FLORIDA STEREOS** of historical value, especially Tallahassee, Tampa and Gainesville. Price and describe or send on approval, highest prices paid for pre-1680 views. No St. Augustine. Hendrikse, PO. Box 21153, Kennedy Space Center, FL 32818.

**FOR AN ARTICLE** about bicycles, would like stereo view information (xeroxes, if possible—will reimburse), Professional, amateur, including lithos. Advise loan possibility for use with credit. Laurence Wolfe, Box 62, North Sutton, NH 03260.

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**3-D FOOD PROJECT ASKS HELP**. The possible destruction of the ozone layer is only one of many ecological disasters that could disrupt EVERYONE'S food supply by the end of the century. A 3-D guide book would be the most dramatic and effective way to provide an educational catalog of the kinds of edible plants that could make civilized survival possible. I am asking for help in a project to use the beauty and power of the stereo image in the effort to open minds to the dangers inherent in the high tech subjugation of nature—and to the potential represented by the edible portion of the environment. Assistance is needed to find grant or commercial funding for this pioneering stereoscopic publishing effort aimed at a return to natural economics. For more information, contact Michael Aron Weinberg, 4377 Clayton Ave., Los Angeles, CA 90027.

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**ANOTHER PHOTOGRAPHICA BOOK SOURCE**

The Western Photographic Collectors Association wishes NSA Members to be aware of the mail-order book service offered by the WPCA. Several books mentioned recently in Stereo World are on the list, including 3-D Past & Present, John Carbutt on the Frontiers of Photography, Dates & Sources, and The World of Stereographs.

For the entire list, write to Western Photographic Collectors Association, PO Box 4294, Whittier, CA 90607.

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ARCHIVAL SLEEVES: clear 3-mil Polypropylene
CDV (3.5x4.5 3/8") per 100: $7 case of 1000: $60
POST CARD (3.5x4.5 3/4") per 100: $7 case of 1000: $60
4 x 5" per 100: $7 case of 1000: $50
STEREO (3.5x4.7") per 100: $6 case of 1000: $70
CABINET (4.3x5.7") per 100: $9 case of 1000: $80
5 x 7" per 50: $5 case of 1000: $80
BOUDOIR (5 1/2 x 8 1/2") per 25: $5 case of 500: $70
8 x 10" per 25: $6 case of 200: $34
11 x 14" per 10: $6 case of 100: $35
SUPER ARCHIVAL POLYESTER STEREO SLEEVE per 100: $14

Russell Norton, P.O. Box 1070, New Haven, CT 06504-1070
SHIPPING EXTRA: add $4 per order, mixed sizes ok.

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and the price has been reduced to $29.95!! (+ $1.19
S&H).

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$29.95 (+ $1.19 S&H). Order your copy now and you can
be assured that we will ship it the same day we receive
our supply from Holland.

We'll be shipping the new, revised, 2nd edition by around
mid April at $29.95 (+ $1.19 S&H). (Add $2.50 if UPS
shipment is wanted.)

STEREO BOOKS! STEREO BOOKS! STEREO BOOKS!

THE WORLD OF STEREOGRAPHS by William Darrah. This is
probably the most definitive book on stereo available. Covers
history and practice, and details the scope of collectible views.
Darrah is considered the major US authority on the subject, this
book is his most outstanding achievement. List is $24, we're off-
fering signed copies at $19.95, postpaid!

THE STEREOSCOPE: IT'S HISTORY, THEORY AND CON-
STRUCTION, by Sir David Brewster. Facsimile of the classic 1865
book that defined stereoscopy. It's the single most important
historical book on the subject. Over 235 pages! List is now
$14.95, our sale price $12.95 postpaid!!

THE PRICE GUIDE TO PHOTOGRAPHIC CARDS by H.A.
James. The only book that attempts to evaluate stereo cards, it's
an interesting price guide from England, 1982. Contains lots of
reference material and is profusely illustrated. 132 pages, we offer
it postpaid at $9.99!

Cal. Museum of Photography
THE ORIENT VIEWED. 28 stereographs are reproduced from
the works of many of the best stereo travellers of the 19th cen-
tury. Some images are horrible, all are of splendid quality, and
the book comes with a viewing glass. $5.69, postpaid!

RELIEF. Das Erste Photobuch in 3-D. Imported from Germany, it
consists of anaglyph images of pin-ups so real you can almost
reach out and touch them. Viewing glasses and a large 3D pin-
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The NIMSO 3D BOOK. Everything you want (and need) to
know about the Nimslo 3D including tips on how to use it for
making antique style 3D views. It's a real users, collectors,
sterro fans book, and it's only $7.95 (+.69' S&H).

STEREO KAMERAS VON 1940 BIS 1984. Complete roundup of
stereo cameras marketed for period indicated. It covers 42 dif-
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man, we've included an English translation plus an up to
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All prices are quoted postpaid. Payment must accompany order. We ship by uninsured bookrate mail at your risk, but if you add $2.50 (3S west of the
Mississippi) we'll use UPS or insured mail (mainland US only). Most orders shipped same day received, satisfaction guaranteed. Immediate refund if
we're out of stock. TELEPHONE CHARGE ORDERS (VISA, MASTERCARD ONLY): Call 212 431-9389 any day between 12-5PM. Order will be shipped
via UPS (mainland US only) that day. $.25 service charge plus UPS shipping fee will be added to total amount of order.

Write or call for our free catalog describing 100's of photographic and stereo book bargains.
"The Ladies' Fan—Giants' Causeway, Co. Antrim." G. W. Wilson #927. This natural formation in Ireland fascinated photographers, including Wilson who produced a 30-view set on the Causeway around 1865. For more classic Irish views, see "Stereo Emeralds" in this issue by Joseph Henggeler and Laurance Wolfe.