Sightseeing in Egypt

The images in this issue’s column were contributed by Dr. Peter H. Jacobsohn of Mequon, Wisconsin. He notes that they are part of a small collection of slides he acquired that he believes were shot by someone from the Milwaukee area. The photographer apparently was part of a group of people who traveled extensively on business, but always took in the sights while they were there.

The first view is mounted in a white cardboard Kodak Kodachrome mount, which is stamped “AUG 61C”. A handwritten note in blue ink reads “Back from visit Luxor, Egypt”. I love the blend of old and new that is visible here. The carriage (and its driver) look as though they just stepped out of another century, while the two women in their ’50s attire and horn-rim glasses add a mid-century look, and those metal street lights in the background don’t look much different from the ones I see today!

The second view is mounted in the same kind of mount with the same date stamp, and is simply labeled “Camel back”. This fun shot with the sphinx and pyramids in the background does not appear to include any of those modern street lights, and apart from the women’s clothing, I assumed that it presented a look at an area that was probably unchanged for generations. Upon closer inspection though, I noticed what appears to be a large speaker mounted on a pole (perhaps for some sort of show or presentation) visible just below the sphinx’s chin. At least they painted it to blend in somewhat with the stonework behind it! The big question is how the women in their dressy attire managed to climb all the way up onto those camels!

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

If you’ve found a classic ’50s-era image that you would like to share through this column, please send the actual slide or a high-resolution side-by-side scan as a jpg, tiff or photoshop file to: Fifties Flavored Finds, S610 SE 71st, Portland, OR 97206. You can also email the digital file to strwld@teleport.com. If the subject, date, location, photographer or other details about your image are known, please include that information as well.

As space allows, we will select a couple of images to reproduce in each issue. This is not a contest—just a place to share and enjoy. Slides will be returned within 6 to 14 weeks, and while we’ll treat your slide as carefully as our own, Stereo World and the NSA assume no responsibility for its safety.
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Front Cover:
This Dages and Harman view No. 104, “The Tower, London - Taken from the Thames.” is from our feature article “Old Views Shed New Light on the Tower of London - The Photographic Survey of the Tower by Henry Dages and Alfred Harman, 1861” by Geoffrey Parnell. Dr. Parnell is a former Keeper of Tower History at the Royal Armouries, Tower of London, and a former English Heritage Inspector of Ancient Monuments. He has done various excavations at the Tower and has written extensively on the archaeology of the site and the history of its buildings and institutions.

Back Cover:
“Major Domo,” the robotic security officer from the cast of Captain EO offers a hand at the film’s opening in 1986. An announcement of its reopening in Disneyland appears in the NewViews column. (Stereo by David Starkman)

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

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Member, International Stereoscopic Union
Is the Revolution Over?

With the very real advent of 3-D television sets evident from a glance at almost any electronics store advertising material, it's tempting to think of the stereoscopic revolution as finally here and nearly victorious. The combination of Hollywood's sudden devotion to 3-D with its enticing profit enhancement, the Fuji W1 camera and its likely mainstream competition, and the introduction of 3-D TVs in stores everywhere gives the conclusion a perfectly logical base. Major corporate investment in various aspects of stereoscopic development and marketing aimed at a mass market has never before (and never so quickly) reached anything like the present level. It all had only to wait for digital imaging and playback technology to effectively replace analog, and—boom!

Longtime devotees of stereoscopic imagery in any of its forms may be forgiven, I hope, if the expression “beware of what you wish for” occasionally flits through their minds with the apparent suddenness of this victory of the binocular over the monocular. It's not that many will mourn the loss of a cozy, specialized domain of interest and expertise to the world at large. After all, universalizing 3-D is exactly what we were after with slogans like “The world isn't flat, so why view it that way?” Collectors, in fact, may find a renewed interest and value attached to stereo imagery of all sorts if the mainstream media eventually digs into questions like “where did this come from, and what's been going on with it all this time?” Most optimistic of all, they could even ask some NSA members about it!

A video tutorial on Amazon aimed at promoting sales of 3-D content and accessories has in fact already taken a tiny step in that direction. One segment explains the contribution of Wheatstone to stereo viewing while explaining the basics of 3-D. (One strange gaffe translates an average 70mm human eye separation as four inches, but the information otherwise seems useful if brief.) Other segments explain the basics of 3-D TV technology, shuttering vs. polarized glasses, plasma vs. LCD screens, etc. See www.amazon.com/b?ie=UTF8&node=2248313011.

Some sports events (like the 2010 Masters Tournament) have already been broadcast in 3-D, with the 2010 World Cup to be the biggest 3-D sports event yet. DirecTV promises four 3-D channels and ESPN has guaranteed at least 85 stereoscopic sports events this year. A 3-D-only channel called N3D will feature content from Fox, NBC, MTV, CBS, HDNet, and Turner Broadcasting. All of this hardly compares to the vast amount of existing 2-D content, but it's an introduction that seems to be getting better reviews from the media than did the first days of color broadcasting in the mid-20th century. The eventual quality of this upcoming 3-D content will probably about match the range of existing 2-D television—from hideous and depressing to fascinating and even inspiring. 3-D game, reality or celebrity oriented shows may indeed bring up that “beware of what you wish for” thought, but Discovery Channel has announced a 3-D effort with the cooperation of Sony and IMAX that could bring some impressive nature programming “into” living rooms and with luck, some of the great IMAX 3-D films of recent years.

The prospect of 3-D news programming could make slogans of (Continued on next page)

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The Only National Organization Devoted Exclusively To Stereo Photography, Stereoviews, and 3-D Imaging Techniques.
Thank You Fujifilm

The W1 is the first real 3-D camera people can afford! We are retired and it fits into our budget. My wife has one and she has a world of fun and pleasure with the camera. She is a graduate from New York Institute of Photography in the “Digital Photography” course. The W1 fits nicely in her purse, and she made a Black Suede case for the it. We also purchased a "Pistol Grip" from Adorama for $18.00. Sure helps in holding the W1 steady and prevents fingers from running in front of one of the lenses.

Armand & Anna Meyer
Raton, New Mexico

Fuji W1 Advanced Mode for Hypo/hyper Stereos—A Better Way?

My review of the Fuji FinePix REAL 3D W1 (SW Vol. 35 #4) has been faulted for not covering the Advanced Modes for producing hypo and hyper stereo views. That omission was deliberate as these capabilities are compromised by the inability of the photographer to set aperture, ISO, white balance, exposure compensation, all of which are AUTO-only in these modes. At their heart, these modes are really 2-D mode, left lens only, two shots saved as a stereo pair.

There are two advantages to Advanced 3D. The first is having the ability to coarsely align two sequential images by having a transparent representation of the first shot displayed while setting up the second. This viewer display will be familiar to experienced digital camera users, having been provided in many cameras for years for that purpose for panoramic multiple images. Doing this hand-held can be prone to various alignment errors and demands some knowledge on the part of the photographer of what the object of the procedure is. It also encourages convergence over the more desirable shifting. The camera manual is of no use in regard to the user's understanding.

The second, and more significant advantage is to have the resulting stereo image available after the pair is saved following the second exposure. Unlike normal 3-D shooting, the viewer and review displays are not 3-D. Using Playback to see the stereo, one can determine whether the shot could have been better and another attempt made applying evaluated corrective measures. The camera does no modification such as alignment, it simply saves two 2-D images as an MPO file so they can be seen in stereo on the display.

There are two modes of operation, one that expects two sequential shutter releases and a second that will automatically record the second shot after a selected time interval. Each of these provides for selection of Left or Right as the first image depending upon which direction the camera will be moving. On selection of Individual 3-D shooting the display tells us: “3-D image from 2 shots with each individual shutter”. What this intends to convey is: A 3-D image from 2 shots, one with each individual shutter release.

The camera manual refers to what we know as the “1/30 Rule” for lens separation (it says 1/30 to 1/60) which readers of Stereo World will understand but which will go over the heads of the inexperienced. Again Fuji supplies no guidance.

(Continued on page 37)

Editor's View

(Continued from previous page)

"in depth" coverage at least a technical reality, if not magically a journalistic one. Just how a general move into the third dimension will change television remains to be seen. If movies provide any hint, the best will be amazing and the worst I’ll leave to your imagination. With 3-D TV prices still about that of a used car, it may take years before they can be found for under $600 or better yet at a thrift store or garage sale. Hint of the day for now: find a friend who has one, and bring along a pair of compatible glasses (much cheaper than a TV), plus beer, brownies, popcorn and a sample copy of Stereo World. 16

GONE MADDD

"OKAY ... SO MAYBE MY STEREO PHOTOGRAPHY HOBBY IS A BIT EXPENSIVE. I DON'T KNOW WHY YOU THINK THAT'S INTERFERING WITH MY JOB."

"OKAY ... SO MAYBE MY STEREO PHOTOGRAPHY HOBBY IS A BIT EXPENSIVE. I DON'T KNOW WHY YOU THINK THAT'S INTERFERING WITH MY JOB."

by AARON WARNER
3-D by Ray Zane
We're into the third year of the great recession of the new millennium and unemployment rates continue in the double digits, yet I once again have the pleasant duty of thanking all of our marvelous members who have so graciously given of their money (and time) over the past year. The generous donors listed here have contributed financially to the organization. The 262 donations totaled $6,666.00. While this amount is down from previous and more prosperous years, it is a true testament that the National Stereoscopic Association (NSA) is a treasured and important resource to its members and to the stereo community.

It is heartwarming to see this level of interest and support from the membership. Thank you for your donations and your continued confidence in the Association. Your contributions are still very much needed in this time of increased printing costs and what is now an annual postage increase by the United States Postal Service.

With these increased costs, the NSA is looking at ways to stay on budget and reduce any unnecessary expenses associated with distributing Stereo World magazine to its readers, more members would certainly help. So my additional and ongoing plea is that your help is needed to spread the word and grow the membership. With the continued interest in stereo photography and 3-D movies, Stereo World magazine should be even more popular than ever. We have no advertising budget, so please help spread the word; the more members, the better the organization.

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

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

Not the least among these volunteers are the members of the NSA annual convention committees. These extravaganzas are the highlight of the 3-D year, featuring the stereo-related Trade Fair, many hours of great stereo projection programs, educational workshops and social events. I hope to see everyone this summer as we return to Ohio, the state that hosted the first NSA gathering in 1975 and where we have met seven times.

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

Best regards,
Lawrence Kaufman
NSA President
kaufman3d@earthlink.net

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Return of a 3-D Sensation

After a 13 year hiatus, Captain EO has returned to the Tomorrowland Theater in Disneyland. The show ran from 1986 to 1997 and is now back for an extended engagement. (See SW Vol. 13 No. 5.) By early summer, the film will also be running at Disneyland Paris, Tokyo Disneyland and Walt Disney World.

The 3-D science fiction rock musical features Michael Jackson as Captain EO leading his group of alien soldiers to deliver a gift to a wicked alien leader (Anjelica Houston) to bring peace to her planet. The 17 minute dual strip 3-D film was shot with a custom rig combining two 65mm cameras in an "L" configuration shooting into and through a 45° half-silvered mirror. This allowed lens separations from zero to several inches as well as convergence adjustments for what was, in 1986, the most complex, special effects loaded 3-D film ever made. George Lucas is the Executive Producer and Francis Ford Coppola is the Director. The film was presented by Eastman Kodak Company, which also provided technical consulting to Walt Disney Imagineering.

Captain EO was a huge event at the time, combining the star power of Michael Jackson with the technology and publicity power of Kodak and Disney. The grand opening featured a parade of celebrities at Disneyland (stereographed for a Stereo World cover story by David Starkman and Susan Pinsky) and an NBC Captain EO TV special. Disneyland was opened for a 60 hour weekend, with special admission rates and group packages. The weekend attendance record for Tomorrowland was broken, and all Captain EO audience members were given a special commemorative t-shirt. Hinting at the sort of media attention Avatar would receive 24 years later, the Los Angeles Times called Captain EO "either the film event of the year, or the rock video event of the decade, or the 3-D event of the century. Take your pick."

"Major Domo," the robotic security officer from the cast of Captain EO offers a hand on opening day. (Stereo by David Starkman)

"Hooter" the musical green elephant and some of the fuzzier creatures from Captain EO were present for the opening day crowds in 1986. Hooter is the closest to a traditional Disney character in the film. (Stereo by David Starkman)
3-D Saves the World!

Well almost. 3-D has saved the movie theater business and the broadcast industry is counting on 3-D to do the same for them. The Motion Picture Association of America (MPAA) reported that the box-office tally for last year was largely due the 11% 3-D surcharge. The North America theatrical ticket sales topped $10.6 billion, which was up 10% from 2008. The number of U.S. movies released decreased 12%, the first decline since 2003 due mainly to recessionary pressures on movie investments. 3-D TVs are set to take off. Gaming has been on the verge of a 3-D revolution for the past decade and the military, NASA and medical applications continue to grow. Will 3-D TV be next big 3-D explosion?

Samsung Electronics unveiled their line of 3-D LED televisions, Blu-ray Disc players and related home theater products in tandem with an exclusive 3-D Blu-ray of DreamWorks Animation’s Monsters vs. Aliens. DreamWorks Animation’s Shrek series will be available on 3-D Blu-ray exclusively from Samsung in the second half of the year. Sony is taking pre-orders on its first 3-TV that will be available in Japan in June (and the U.S. later), a 46 inch Bravia selling for $3,875. Sony already debuted their 3-D enabled Blu-ray players. Panasonic already has models for sale and LG Electronics models should arrive by May (they plan to sell a million this year). Vizio, the number one LCD TV manufacturer will introduce 3-D enabled units in August. Preliminary reports on 3-D TVs (only three 3-D TVs tested), can be found on the Consumer Reports website: www.consumerreports.org/cro/video-hub/electronics/televisions/16935238001/ and http://profile.typepad.com/jakeny.

Quoted on the April 27 Consumer Reports.org “Electronics Blog”, the Consumer’s Union Chief Video Engineer Claudio Ciacci observed:

Two years from now, when 3-D TVs have better market penetration, I predict there will be more 3-D cameras, camcorders, video games (of course), CAD software, and maybe even websites that will be viewable on 3-D displays. With 3-D photos, you’ll have a more immersive experience when viewing images meant to convey information. Imagine house-hunting online, checking out a new car, or bidding in e-bay auctions with 3-D images. You could e-mail 3-D photos of your new baby or your new car to your friends so they can view them on their big-screen TV, and they’ll feel like they saw the real thing. Some people feel 3-D is controversial, but in reality it’s just a cool new feature added to a normal TV. One day soon, viewers may discover applications that are of value to them.

Possible Avatar Re-release?

Discussions are going on between James Cameron & Fox about re-releasing Avatar to primarily 3-D theaters in late summer with additional scenes that had been left on the cutting-room floor in the rush to ready the epic for its December 18 release. The impetus for a re-release is the feeling that, even though Avatar is the highest-grossing movie of all time, producers could have raked in even more money had they been able to hold on to the digital and Imax 3D screens that were lost when Disney opened Alice in Wonderland in 3-D on March 5.

About 40 minutes of additional material didn’t make the Avatar theatrical cut and Cameron has said that he had 10 to 12 minutes of extra scenes that he cut and could quickly put through post production and have ready to add to a director’s cut for a theatrical reissue or as an extra on the DVD release. One scene has to do with Jake Sully’s avatar proving himself to the Na’vi people; the other involves a native festival during which tribe member Tsu’tey gets drunk.

Sony, CBS 3-D Research Center

CBS and Sony Electronics opened the doors to The Sony 3D Experience consumer research and screening facility in Las Vegas on March 2nd. The facility is located at the MGM Grand Hotel and Casino where CBS already has a television themed area. The facility is divided into 3-D theatrical and 3-D home entertainment zones—a use for the area that was their failed amusement park.

IMAX Inflatable Theaters

What’ll they think of next? In a conference call with investors on Thursday, March 11, Imax Corporation CEO Richard Gelfond revealed that the company is developing portable, inflatable IMAX theaters that will be capable of being set up in one day, use the IMAX digital projection system, and seat 450 people.

With a price tag of about $1 million each, a few of the theaters will be tested later this year, and Imax may eventually build as many as ten. Calling them “a big billboard” that sponsors might help fund, Gelfond envisioned the inflatables being used for film premieres in New York’s Central Park or to bring movies to remote locations in rural China.

Biodegradable 3-D Glasses

Cereplast, Inc., designer and manufacturer of proprietary biobased, sustainable plastic resins, and Oculus3D (NewViews, Vol. 35 No. 5), a company focused on film-based 3-D projection technology, announced that Oculus3D will introduce the world’s first biodegradable/compostable 3-D glasses as part of the Oculus 3D viewing system. Oculus3D’s eco-friendly 3-D glasses are manufactured using Cereplast’s bioplastic resins and are expected to be available for Summer 2010 distribution to movie theaters.

Major 3-D movie releases like Avatar and Alice In Wonderland require more than 10 million pairs of glasses around the globe for each movie, and the demand for 3-D presentations is growing rapidly. While many theaters collect

(Continued on page 37)
Years ago, when trying to describe the process by which flat, two-dimensional cartoons were converted to stereo for 3-D comic books, underground comix devotee Roger May characterized the technique as the “cut-and-shift parallax adjustment method.” That’s a wordy but accurate way of describing the single most labor-intensive aspect of creating any stereoscopic conversion, whether the imagery is still or in motion, a line art cartoon, CG (computer-generated) or a photographic image.

Motion picture professionals (vfx artists) describe the isolation, selection or “cutting out” of the visual element to be shifted horizontally as “rotoscoping” or “roto-ing.” Freeman H. Owens, in his 1936 U.S. Patent (No. 2,057,051 titled “Method of Drawing and Photographing Stereoscopic Pictures in Relief”) characterized rotoscoping as the “dissecting of the picture” and “separating a flat picture into a plurality of sections.”

There are increasingly sophisticated digital tools to speed up the rotoscoping process, similar to the “magic wand” in Adobe Photoshop which automatically isolates a given area of color when clicked on. But none of them, as yet, are perfect. It is, as Tim Sassoon, whose SFD (Sassoon Film Design) vfx house has converted numerous motion pictures to stereo, a “machine vision problem” in that humans, as mammals with binocular vision, are enormously complex in the way that we learn about and perceive the visual world. So rotoscoping still remains largely a manual labor, even if it amounts to making corrections to machine vision errors.

Progress, however, is being made. And two recent attempts at stereo conversion of flat subject matter, Tim Burton’s Alice in Wonderland 3D, released by Buena Vista March 4, and Clash of the Titans in 3-D, a Warner Bros. (WB) April 2 release, pulled in big 3-D bucks at the box office despite lukewarm reviews for both content and stereoscopic treatment. As of April 23, Alice had raked in $325 million to become the second highest grossing 3-D film of all time, right after Avatar. Clash of the Titans, with 3-D box office outperforming 2-D by 2 to 1, is nicely perched at number nine on the all-time 3-D box office list with a total take to date of $136 million. Executives at WB who green-lighted 3-D conversion of Titans only eight weeks prior to release have to be congrat-
ulating themselves, even though there's been a lot of carping in the blogosphere about the quality of the 3-D in Titans.

"Don't Ask Alice: Instead, ask Tim Burton why this Wonderland visit isn't wonderous" read the headline to Kenneth Turan's March 4 review in the Los Angeles Times. "Through no fault of its own, Alice also has the misfortune of being the first major 3-D release to come out after the Avatar revolution," wrote Turan, "and when you add in that Burton chose to shoot in 2-D and have the footage converted, it inevitably plays like one of the last gasps of the old-fashioned ways of doing things."

The moviegoing public, however, doesn't seem to pay that much attention to film critics when it comes to going to 3-D movies. With his review for Clash of the Titans in 3-D, headlined "Clash & burn: The Titans remake is filled with clunky dialogue and muddled 3-D effects" Turan was even less kind. "It's doubtful that records are kept about this sort of thing," Turan quipped, "but consider the possibility that Clash of the Titans is the first film to actually be made worse by being in 3-D."

After slamming the dialogue as "plodding" and the action scenes as "lethargic and clunky," Turan notes that "possibly because this film was converted to 3-D late in the game, the third dimension, especially in those action scenes, is more of a distraction than an enhancement" and adds that "3-D clutters the film's innumerable battles, making them harder to follow rather than exciting."

To be accurate, it's fair to say that Alice was actually more of a hybrid stereo conversion in which the flat 2-D live action photography utilized green screen so that rotoscoping was fast-tracked and provided clean edges to actors composited against the CG backgrounds, even though there were straight stereo conversions of live action photography at the beginning of the film. With Clash the 3-D conversion was done from composites of CG and live action that had already been married, complicating the rotoscoping process, the most time-consuming part of the procedure.

Now, the gold rush mentality is doing a full tilt boogie in Hollywood, with 3-D conversion considered a new pickaxe to mine for stereoscopic gold from 2-D assets. This is all going on while a serious 3-D traffic jam is taking place at theaters with only about 4000 3-D capable, out of a combined 38,000 2-D theaters domestically and, perhaps, 130,000 worldwide. Money, as they say in Hollywood, is "being left on the table" as box office win-
Hyper/Hypo
Fun with the W1
by George Themelis

Single camera hyperstereos were the specialty of legendary stereo photographer Paul Wing. In a 1989 article in Stereo World ("Hypers by Walk, Water, Wire & Wing" Vol. 16, No. 2) Paul wrote: "It has long been my contention that stereo pictures of our travels should be sprinkled with a few wide base views. These are fun to make and fascinating to view." I agree, plus I would throw a few hypostereos (narrow base) into the mix.

Paul continued: "You can make them using your trusty stereo camera, but it is easier with a full 35mm camera, preferably with automatic film transport and one of the newer compact zoom lenses." What Paul wrote in 1989 is still true today if shooting film. For over 20 years I have carried a 35mm camera in addition to my stereo camera for the exclusive purpose of taking single-camera stereos. But now, with the new Fujifilm Real 3-D W1 digital camera, my passion for hyper/hypo stereos has taken a new turn.

The Fuji Advantage
The Fuji 3-D camera offers a number of advantages for single-camera stereos.

1) There is no need for a separate camera, as the same camera serves as a stereo camera and a single camera.
2) It has built-in functions that facilitate taking hyper/hypo stereos, and you are able to see the results right away.
3) Experimentation costs nothing and misalignments can be corrected later with software.

This last point is very important and needs to be emphasized. Taking hand-held hyper/hypo stereos is an imperfect method based mostly on trial and error. When using film, the process has a rather low "success ratio" so it can be expensive. Aligning the stereo pairs can also be time-consuming and frustrating. One advantage of digital is not only that it does not cost anything, but using software like StereoPhoto Maker, the stereo pairs can be aligned by just pressing a button. If you enjoy single camera hand held hyper/hypos, you should consider taking them with a digital camera. Even if you work primarily with film, you can always transfer the best digital pairs onto film later.

While any digital camera could be used to take hyper/hypo stereos, I have decided to focus on the Fuji camera because of the built-in functions that help in taking them. Fuji is a pioneer and I think most future digital stereo cameras will offer similar tools, so the basic principles could be used with other (future) cameras.

Getting Started
There are two important buttons on the back of the camera, circled in Fig. 1. The MODE button (top left) brings up the main shooting figue.
menu and allows you to switch modes. Use this button to put the camera in “Advanced 3D” mode. There are two “Advanced 3D” modes: “Individual Shutter 3D” and “Interval 3D Shooting”. These modes are selected by pressing the MENU button on the top right. The same button allows you to change the shooting variables within each mode. The camera remembers the last options used so you only need to get to this menu if you want to change the shooting mode or the shooting variables within the mode.

**Individual 3D**

This is the classic “single camera” shooting mode (Fig. 2), where the photographer presses the shutter button to take the first picture, moves the camera, and then presses the button again to take the second picture. Fuji brings two innovations into this old process:

1) After the first picture is taken, an outline of this picture is shown on the screen. Using this outline as a guide, the camera can be better positioned (in terms of alignment and also of amount of parallax or depth) to take the second picture.

2) After the second picture is taken, the camera combines these two pictures to create a 3-D picture, which can be previewed on the screen.

These are powerful tools that make the process more accurate in terms of alignment and more fun because of the instant preview.

**Interval 3D**

In this mode (Fig. 3) the camera will fire the 2nd picture after a predetermined time interval. This mode is best suited for shooting from a moving platform (airplane, boat, etc.). Even though the “individual 3D” mode could also be used from a moving platform, it is convenient not to have to press the shutter button twice, but just fix the camera, take the first picture, and let the camera fire again after a predetermined time interval.

The time interval choices are: minimum, 1, 1.5, 2, 3, 5, and 10 seconds, and can be selected from the “Menu” screen. Normally, I take the left picture first (this is also the default setting in the camera), but sometimes there is no choice, or it is preferable to take the right picture first. For example, when you are sitting on the right side of a moving vehicle, the right picture will be taken from a fast moving car or train, but it works well for shooting from a plane or boat. I have found that the 5 seconds interval works well with the plane cruising at high altitude, while minimum and 1 second work better during landing or with clouds closer to the plane.

**Order of Pictures**

In either mode there is an option to change the order that the pictures are taken (left first, or right first). This option is labeled “TURN” in the shooting menu. When taking the pair, the camera indicates which picture should be taken by using small camera icons labeled 1 and 2 and highlighting the appropriate icon.

Normally, I take the left picture first (this is also the default setting in the camera), but sometimes there is no choice, or it is preferable to take the right picture first. For example, when you are sitting on the right side of a moving vehicle, the right picture will be taken
How Much To Shift?

This is the age-old question and a source of anxiety for beginners in stereo. Paul Wing answers this in his own unique way: “The mathematical genius spouts the numbers, but seldom gets around to making good pictures. In real life, you simply try a few, and profit from your mistakes.”

I tend to agree with Paul’s empirical method. Plus, with the Fuji, you can use the two innovations mentioned earlier to assist you:

1) Since the first picture is outlined while you are composing the second picture, it is possible to measure the amount of parallax (relative shift of near to far objects) before taking the second picture. The width of the Fuji screen is about 50mm. For good projectability, the parallax should be about \( \frac{1}{25} \) to \( \frac{1}{50} \) of the width, or about 1-2mm. So, you could move the camera until the parallax is between 1 and 2mm, and then take the second picture. Usually, when I shoot hand held stereos I am in a hurry so this method is not very practical for me.

2) Using the 3-D preview, one can actually see how much depth is in the picture. With a little practice, one can calibrate his or her memory to translate the small 3-D image to a larger projected image and decide if the amount of depth is acceptable. It is also possible to use the parallax buttons of the...
camera (these shift one picture with respect to the other) to attempt to measure the deviation by counting how many times the parallax button is pressed to move the coincidence (overlap) of the images from the back to the front. This is also useful to set the correct stereo window. If the camera is kept parallel (no converging) the stereo window is “at infinity”. Using Fuji’s parallax button, the stereo window can be brought to the front, where it provides better viewing.

If the deviation (depth) is too much (usually the error is on the “too much” side) then take the picture again with less shift. Between the two shots there is wide range of acceptable pictures and the extremes can be spotted in the preview.

Alignment Concerns

Keeping the camera aligned between the two shots has been the greatest headache when using film. But now things are better with digital and the possibility of correcting misalignments with software. Still, an effort should be made to keep the camera reasonably aligned between shots. Fuji’s “shadow outline” helps in that respect.

One common error is differential keystoning. This is caused by converging the camera lens to the subject, instead of keeping it parallel. Keystoning can be corrected digitally, if done in moderation.

Another error is pointing the camera to (or away from) the direction of movement, or (same thing) changing the distance to the subject between the shots. This changes the size of near versus far objects differently so it cannot be corrected digitally. Try to keep the camera perpendicular to the direction of motion and avoid the temptation to turn the camera towards the front (or the back) of the airplane. It is OK to tilt it up or down, but not sideways.

A final error that cannot be corrected digitally is loss or gain of elevation between the shots. For example, if the plane is gaining or losing elevation (during takeoff or landing) the camera should be rotated to follow the plane trajectory. Mentally mark an object in the viewfinder (or screen) and make sure that it stays in place while the plane is moving.

These errors, if small, will most likely be unnoticed. Also, many errors are proportional to the amount of depth (more depth = more error). Bottom line: It helps to err on the conservative side!

Hyperstereos with the Fuji

During a recent trip to Athens, Greece, I spent 10 hours in airports and 20 hours inside planes. During this time I took plenty of hyperstereos in the airports and through airplane windows with my Fuji. Here is a bit of advice: The preparation starts when you book your seats for the flight. The best seats are in the front (avoid the wing or exhaust from the engines). The position of the sun might affect which side (right or left) is the best. Remember, on the right side of the plane take the right picture first. Finally, you are hoping for a clean window (be prepared to do some cleaning). Use high shutter speeds and lens shades if possible or flush the camera to the window to minimize reflections. Warm up by taking hyperstereos of planes on the ground in the airport using the Individual 3D mode (Fig. 4).

Use the Interval 3D mode during the flight. Experiment with time intervals from Minimum to 5 seconds. In my opinion, you don’t need to worry about filters with digital. The blue haze or lower contrast, typical of aerial hyperstereos, can be corrected later with software.

Cloud hyperstereos can also be taken from the ground. Fig. 5 shows a cloud hyperstereo taken from a moving car.

Moving platforms like airplanes and boats are perfect for hyperstereos. But there are a lot more hyperstereos to be taken. In the words of Paul Wing: “Every day when the air is calm, I think hyper!” Next time, before you press the shutter to take an ordinary stereo picture, stop and think: Will a hyperstereo work here? With the Fuji it is easy and inexpensive to experiment with hyperstereos and get instant feedback. Whatever does not work just gets deleted and a lesson is learned.

Moving objects are the biggest enemy of single camera hyperstereos. Small movements can be tolerated but hyperstereos with people or moving traffic are impossible. This still leaves a lot of subjects possible: Nature (without wind), buildings, statues, or other architectural details, high rise hyper views, etc. I have taken terrific hyperstereos from the top of the Acropolis, overlooking Athens. Fig. 6 shows a high rise hyperstereo taken by David Starkman from the 27th floor of the Los Angeles City Hall at night.

Hypostereos with the Fuji

Most of the attention in single-camera stereos has focused on...
**Speedy Folios Reports**

Folio Secretaries Linda and David Thompson report, “It’s been cold and rainy here in Salem, Oregon so it’s a good time to do paperwork, and bring our records up to date.” Working together as Team Thompson, Linda and David stay quite busy wrangling the various Speedy Folios which include stereoview print cards made both in color and black-and-white. The Speedy Folios are limited to less than ten participants and were created by Bill Walton as a way to “Keep ’em Moving” and make a rapid postal circuit. Each Speedy Folio box is to be held, ideally, by folio members for no longer than five days before being sent once again on their round. “We have listed below the three top cards for each folio,” notes Team Thompson. “The folios have slowed down but are still making their rounds.”

**Speedy Alpha I**

1 “Havana Delight - Cuba”
   by David Delouchery
2 (tie)
   “Coast Near Yaquina Head”
   by Linda Thompson
   “Furnace Creek Inn”
   by David Thompson
3 (tie)
   “Prelude to a Storm”
   by Ernie Rairdin
   “Caution”
   by Harold Jacobsohn

**Speedy Alpha II**

1 “Silo Ladder”
   by Harry Richards
2 “Oahu, HI (north coast)”
   by Peter Jacobsohn
3 “Clyde River”
   by David Delouchery

Speedy Keystone and Speedy Mike are black-and-white stereoview card print folios and the top three views for each in 2009 as reported by Team Thompson are shown below.

**Speedy Keystone**

1 “North Head Lighthouse”
   by David Thompson

**Speedy Mike**

1 “Dining Room”
   by Harry Richards
2 “Trees 2N of Maplegrove”
   by Stan White
3 “Back Alley”
   by Harold Jacobsohn

“We have been working on ways to keep the weight down in the folios and would appreciate any suggestions,” notes Team Thompson. “We are going to stop including voting cards since almost everyone has email and can drop us a note with voting, new card name, etc. Please continue to do this so we can track the folios.”

**Avian Folio**

The Avian Folio consists of a somewhat larger group of stereographers and David Goings is the circuit secretary. SSA Treasurer and
Membership Director Les Gehman recently sent around an intriguing and very well-made stereoview print card in Avian Folio titled “Silver Grill Café” that was photographed in Thompson Springs, Utah. For this view Les used a pair of Canon Digital Rebel XTIs and an SLR Shepherd. The stereoview was processed with Cosima and then run through Stereo Photo Maker (SPM) and, subsequently, Gimp and Shutterfly software.

“This is my first attempt at selective coloration,” notes Les. The Silver Grill Café stereoview card makes a very subtle use of color within an overall black-and-white context. It is a beautiful stereographic documentary record of vanishing Americana that Les, apparently, shot just in time.

Sent in the Avian Folio in the view sleeve along with “Silver Grill Café” was a color photo that David Goings had inserted. “I found this posted on Google Earth,” notes David. “The fallen sign looks similar to the one Les took, but says ‘Bar.’ (This photo uploaded to Flicker 1/16/09).”

Perhaps ‘Café’ on one side & ‘Bar’ on the other?” speculated Avian Folio member Linda Nygren. “There was another photo from early 08 with the sign down at a slightly different angle. So either it was put back up, or perhaps Les’ 8/08 date is off? Anyway, postings from this year suggest the sign is gone. Too bad.”

Other Avian Folio members were quite intrigued by the Silver Grill Café stereoview. “Nicely done – well crafted card,” wrote Bill Patterson. “Wonder how the food was?” “Excellent view,” noted Michael McEachern. “The coloration really adds impact.” “Great shot with the added mood of the selective color print,” observed Ernie Rairdin. “Very attractive card presentation.” “Like the color on just the sign,” wrote Linda Thompson. “David’s added picture makes for fun – looks like a return trip is needed.”

14th International Stereo Card Exhibition

Stereographers are reminded to submit their work to our International Exhibition. Each entrant may submit up to 4 views in the Holmes format, 3.5 x 7” stereo card only.

The entry fee is USD $8.00, which includes return of entries by First Class Mail to USA and Canada, and Small Packet Air elsewhere. Send entries to Dennis Green, 550 E. Webster, Ferndale, MI 48220 USA. Checks must be in US dollars and made out to Dennis Green, currency in US Dollars will be accepted at entrant’s risk.

The Closing Date for the Exhibition is July 10, 2010. They will be judged on July 14, 2010 with Report Cards mailed July 26 and return of total rejects on July 31, 2010. The catalogue and awards will be mailed September 13, 2010 with all other returns on the same date.

Exhibition of the Acceptances and Award-winning entries will take place at the NSA Convention in Huron, Ohio from July 15-18, 2010 and at the Detroit Stereographic Society in Livonia, Michigan on September 8, 2010.

How to Contact the SSA General Secretary

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

How to Join the SSA

To join the SSA one must first, of course, be a member of the NSA. For placement in a stereocard, transparency or digital folio of their choice the new SSA member must send $10 to Treasurer Les Gehman at the following address: Les Gehman, 3736 Rochdale Dr., Fort Collins, CO 80525 (970) 282-9899. Les can be reached via email at: lesgehman.org.
Old Views Shed New Light on the Tower of London

The Photographic Survey of the Tower by Henry Dages and Alfred Harman, 1861

by Geoffrey Parnell

Earl in 2007 Paula Fleming introduced me to a nineteenth-century stereocard with a label on the reverse proclaiming “TOWER OF LONDON: TRAITORS TOWER FROM THE WHARE.” This refers to the great watergate tower on the riverside of the fortress built for Edward I between the years 1275 and 1279. The building not only provided the principal entrance to the fortress, but contained a sumptuous private apartment for the king overhead that was supported over a water-filled basin by the largest single arch ever built in medieval England and which, thankfully, remains unaltered to this day.

My immediate reaction to the stereo image was complete surprise, for the photograph must have been taken before the harsh restoration carried out under the auspices of the architect Anthony Salvin for the Office of Works in 1864-66. On closer inspection I also realized that there was no indication of the damage caused by the partial collapse of the southeast turret, thus indicating that the photograph must have been taken before June 1862. After a quick exchange of information with Paula it was clear that the slide belonged to an anonymous series, comprised of extraordinary early views of the Tower. The enigma of who produced the slides,
and when, began to unravel when I found that a number of the images had been reproduced as engraved illustrations by the well-known engraver, W. J. Palmer, for the revised 1863 Tower guidebook by J. Wheeler. On the frontispiece of the guide is a drawing of a "GENERAL VIEW OF THE TOWER" from Tower Hill, that is reproduced from one of the slides, and above we are informed that the book is "Beautifully Illustrated from Photographs" by a certain Mr. A. Harman, Gunnersbury Villas, Albert Road, Peckham (Fig. 1). Alfred Harman (1841-1913) is well known in England for founding the Britannia Works in 1879, which became Ilford Ltd. in 1900, but his earlier professional career has, until now, been obscure.

Paula Fleming unearthed a crucial piece of information from the pages of Photographic News dated 18 October, 1861 where a review of "The Tower of London" by Dages and Harman notes "We have before seen isolated views of the Tower; but never until now an entire series, giving a complete view of this monument of old London... the series, which numbers between two and three dozen, will, we apprehend, be in demand as a source of instruction as well as amusement". The life and times of Harman's associate, Henry Dages, is also difficult to chart. Born in Paris in 1829, the English census of 1861 finds him occupying the same property at 3 Albert Cottages, Hill Street, Peckham, London, as Alfred Harman. This is the same year that the Tower series was launched and two years later an almanac lists both photographers having their studio at the Albert Cottages address. Their photographic services are advertised in The Times in February 1864, but Paula Fleming informs me that the commercial relationship did not extend much beyond that date. Dages is found living in Peter Port on the Island of Guernsey at the time of the 1881 census, and again in 1891, but after that his name disappears from the official records.

Before 1861 the only available mass-produced stereo cards of the Tower of London were the handful of images issued by Negretti & Zambra in 1858/9, which included a view from the river, another from Tower Hill and evidently three variants of the Parade Ground north of the White Tower. The reviewer in the Photographic News was absolutely right when he declared that the Dages and Harman series represented the first complete view of the Tower. (Fig. 4.) The series is simply seminal and provides a unique and fascinating visual record of the fortress at a time of change and upheaval. Many of the views capture the diversity of the architecture and the wealth of centuries of patchwork repairs and alterations that was such an intrinsic and attractive feature of the historic fortress. Over the next thirty-five years the Tower was subject to something akin to the Götterdämmerung as much as the historic fabric was destroyed in a brutal and ignorant attempt, called "restoration", to re-create a medieval castle.

The background to destruction was driven by a fundamental change in the function and interpretation of the Tower of London. From at least the late twelfth century the Tower offered a settled environment for the principal department of the royal household—the Wardrobe. As the Middle Ages progressed the Wardrobe increasingly separated into institutions with their own workshops. Before 1861 the only available mass-produced stereo cards of the Tower of London were the handful of images issued by Negretti & Zambra in 1858/9, which included a view from the river, another from Tower Hill and evidently three variants of the Parade Ground north of the White Tower. The reviewer in the Photographic News was absolutely right when he declared that the Dages and Harman series represented the first complete view of the Tower. (Fig. 4.) The series is simply seminal and provides a unique and fascinating visual record of the fortress at a time of change and upheaval. Many of the views capture the diversity of the architecture and the wealth of centuries of patchwork repairs and alterations that was such an intrinsic and attractive feature of the historic fortress. Over the next thirty-five years the Tower was subject to something akin to the Götterdämmerung as much as the historic fabric was destroyed in a brutal and ignorant attempt, called "restoration", to re-create a medieval castle.

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and storehouses and their own staff. One of these was the Privy Wardrobe, which from the early fourteenth century, specialized in the production of guns and gunpowder at the Tower. By 1414 the Privy Wardrobe had split again into the Office of Ordnance, which supplied the armed forces with cannon, handguns, gunpowder and the more tradition bow and arrow, and the Office of the Armory which supplied the same with armor and edged weapons. It was the Ordnance, which grew in size and importance throughout the sixteenth and seventeenth centuries and, after the Restoration of 1660, occupied the largest areas of the Tower.

In 1598 the Elizabethan antiquarian and chronicler John Stow wrote ‘This Tower is a Citadell, to defend or command the Cittie: a royall place for assemblies, and treaties. A Prison of estate, for the most dangerous offenders: the only place of coinage for all England at this time: the armorie for warlike provision: the Treasurie of the ornaments and jewels of the crowne, and generall conserver of the most Recordes of the kings Courts of justice at Westminster’. He might also have added that it was still an occasional royal residence and the home of the Royal Menagerie.

An old medieval castle in the center of London, with its physical and geographical constraints, could not, however, perform this multitude of tasks forever and during the nineteenth century the official occupants finally began to leave the fortress for more commodious accommodation elsewhere.

The exodus began in 1812 with the Royal Mint abandoning its facilities in the Outer Ward for a new complex on Little Tower Hill. The Royal Menagerie closed its
gates in 1835 ending 600 years of housing wild and exotic animals on the site after "a large and furious wolf" escaped and terrorized the Tower inhabitants during a Sunday morning service. In 1841 the passing of the Ordnance Survey Act saw the Ordnance Office Drawing Room move to Southampton to become the independent Ordnance Survey. The Record Office withdrew staff and thousands of historic documents during the 1850s, but it was the gradual phasing out of the stores, offices and workshops of the Ordnance Office in the wake of an enormous fire in 1841 (caused by their gunsmiths, also sent packing) and the aftermath of the Crimean War (1853-56) that had the greatest impact on the Tower. The Ordnance was accused of supply failures during the campaign and Parliament took its revenge by dissolving the ancient department and transferring its duties to the War Office.

During its swan song the Ordnance seems to have been gripped by a desire for modernization and embarked on a series of "improvements" that wrought havoc with the fabric of the Tower. Having destroyed a fine row of Henry VIII's office buildings north of the Bloody Tower in 1846, they leveled the great Lion Barbican at the western entrance in 1852. Dating from the 1270s and probably the finest pieces of medieval military engineering in England, this fantastic structure disappeared along with Sir Bernard de Gomme's 1670 baroque gatehouse and barrack and guard designed and executed in an experimental Palladian style. The surviving section of Henry VII's 1506 renaissance gallery adjoining the Salt Tower was destroyed along with virtually all the former Mint buildings, many Tudor in origin, in the northern Outer Ward.

What the Ordnance and their Royal Engineers left standing, the Office of Works then despoiled. During the period 1850-70 virtually every available medieval wall tower, including major structures like the Wakefield and St. Thomas's tower were recast and needlessly altered under the direction of the consultant architect Anthony Salvin. The hard cements, the poor stone (often bedded incorrectly) and the cheap metal window frames, etc., characterize this era of "restoration" and provide an ongoing nightmare for the Tower's building conservators of today.

After the welcome departure of the elderly Salvin the campaign of destruction continued under the direction of the Office of Works' own architect John Taylor for another twenty years. There is insufficient space on these pages to catalogue the extent of the damage that Taylor exacted on the Tower, though the loss of the eastern annex to the White, which contained the core of the fourteenth century Wardrobe, and the fine old Record House, next to the Wakefield Tower, that originally formed part of Henry III's private apartment, may be mentioned.

Faced with growing public criticism of what was being done at the Tower, Taylor deployed ignorant and ill-informed arguments against William Morris and the Society for the Protection of Ancient Buildings who mounted a vigorous campaign to stop the restoration works at the Tower, which they described as "mischievous, illusory and ridiculous". When the demolition gangs had gone and the Tower was wrapped in the poverty of Victorian pastiche, and Taylor had received his knighthood for vandalism, the society wrote to the Office of Works declaring prophetically that their Committee "ventures to predict that in a few years the views it now sets forth will be thought not popular yet so generally received by educated people that the notion of building a medieval Tower to show what England was like in the 13th century will finally be given up and in place of it a respect for genuine remains of former times will prevail."

Amidst this awful chapter in the history of the Tower the work of the young Dages and Harman brings some relief. The color of their mounts is the standard ochre
yellow of the day and they carry small labels on the reverse (Fig. 2). These carry information about the subject of the photograph of a length and nature not seen on earlier stereo cards and are therefore probably seminal in purpose and design. Furthermore, the subjects of their survey and the positions and angles of their views are noticeably copied and emulated by most of the professional photographers that followed them around the Tower for years to come.

I list below the cards that Paula Fleming and I have identified to date, together with some observations and information about the subjects that have been photographed. I hope these will help with the interpretation of the fasci-

More Dages and Harman Views?

These images from the 1863 Tower of London guidebook are those that Paula Fleming and I have so far been unable to obtain. The captions of the engraved views follow those printed on the card labels and I have little doubt that the revised guide of 1863, which is far more illustrated than earlier additions, was designed around the Dages and Harman portfolio. If the numbering of the cards is anything to go by I strongly suspect that there are views we have not identified, including perhaps, some that are additional to those in the guidebook. That said, Paula Fleming and I would be delighted to hear from any reader of Stereo World who might have some of the elusive companions, or information about where they might be found.

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ST. JOHN’S CHAPEL.

THE BEAUCHAMP TOWER.

THE BYWARD TOWER. (From the East).

THE MIDDLLE TOWER. (From the East.)

THE TRAITOR’S GATE.

THE BELL TOWER.
nating record of the Dages and Harman camera.

**No. 104 “Taken from the Thames.”** (Fig. 3.)

A delightful view of the Tower taken from the south side of the Thames close to London Bridge.

**No. 158 “NORTH VIEW OF THE BLOODY TOWER.”** (Fig. 5.)

“The Tower is supposed to have derived its name from the circumstance of the two young Princess, Edward the Fifth and his brother Richard, Duke of York, sons of King Edward the Fourth, having it is said, been put to death in this particular spot by order of their Uncle Richard, Duke of Gloucester, afterwards King Richard the Third.”

The evidence for the murder of the boy princes in this building is thin, probably nonexistent. Of much greater interest is the transom and mullion window in the upper half of the building. Had the Victorian restorers consulted the Office of Works Exchequer rolls perhaps they might not have destroyed the window for it is of some historic interest having been installed in 1605/6 for Sir Walter Raleigh who entered the Tower as a prisoner in 1603. Raleigh’s accommodation in the “Garden Tower” as the building was named, was increased by the insertion of a mezzanine floor—hence the provision of the new window. It was in this seventeenth-century room that the murder of the medieval princess is said to have occurred and it is interesting to note that none of the prisoners’ graffiti in this part of the building dates before the early seventeenth century.

Regarding these inscriptions, the eminent antiquarian and official Inspector of the Office of Works, Sir Charles Peers, advised the Secretary of Works in 1910 that the Bloody Tower was “an object lesson in the danger to which the inscriptions may be subject under the present system: a former occupant [a Yeoman Warder] used to amuse himself when drunk by hacking at them with an axe, and several are utterly defaced”.

A detail that may interest American readers is the small house located to the right of the Bloody Tower. I have never seen this building in photographic form before (it was demolished in 1866) but it is known from seventeenth and eighteenth-century plans as a Yeoman Warders house. Its form, with jettied first floor, suggests to me that it originated as a sixteenth-century timber-framed building. The proto president of the United States, Henry Laurens, [Continental Congress President, 1778] was incarcerated in one of the Yeoman Warders houses, overlooking the green in front of this house, and on the basis of contemporary references the house in the photograph may be where he was held. He spent fifteen months at the Tower having been remanded by the Royal Navy off the coast of British Newfoundland following a trip to the Dutch Republic to raise funds for the insurrection. Rather bizarrely, his release in 1781 was traded with that of Lord Cornwallis, captured by the French with colonial rebel assistance at Yorktown, and at a time when his lordship was Constable of the Tower of London!

**No. 159 “GATEWAY OF THE BLOODY TOWER.”** (Fig. 6.)

“This Gateway, which is in the style of Architecture of the Fourteenth Century, was erected, perhaps in the time of Edward the Third. It is about thirty-four long and fifteen wide. The vaulting is adorned by fine graining and tracery. Each end of this entrance was originally secured by gates and a strong portcullis. At the South end both the gate and the portcullis still exist.”

In about 1220 work began on what was to become the Bloody Tower. The initial structure was a simple, but stout, watergate comprising the gateway that can be seen in the photograph, which was closed by a pair of massive doors and a portcullis. By some sort of divine intervention one of the large iron mooring rings has survived nearly 700 years of moving
carts that have scraped the gate-passage and some ignorant tourists who try to pull it loose. Within a few years flank walls were added to the rear of the gate and the structure became a gatehouse proper. The decorated vault of the passage is the work of mason Henry Yvele carried out under contract between the years 1360-62.

The large rectangular window to the right of the Bloody Tower is part of the refenestration of the Wakefield Tower in the earlier eighteenth century, when the building formed an important part of the Record Office. Unfortunately they were replaced by the existing gothic pastiche in 1868 when the building was converted into a Jewel House.

No. 167 “THE DEVEREUX TOWER.”
(Fig. 7.)
“Formerly called the Develin Tower, but changed for its present appellation in consequence of Robert Devereux, Earl of Essex, the celebrated favorite of Queen Elizab—

Fig. 8. Dages and Harman No. 168, “THE FLINT TOWER.”

beth, having been confined in it, in the year 1601.”

A very dubious statement that has no documentary evidence to support it. The building was heavily restored during 1849/50 but the ground floor still retains a fine thirteenth-century vault.

No. 168 “THE FLINT TOWER.”
(Fig. 8.)
“This Tower has been rebuilt owing to the old Structure falling into Decay.” And now contains nothing of interest.

Fig. 9. Dages and Harman No. 171, “THE BY-WARD TOWER, FROM THE WEST.”
A structure untouched by Victorian restorers, this view has changed little in the last 150 years. The majority of the stonework dates from the 1270s.
No. 171 "THE BY-WARD TOWER, FROM THE WEST." (Fig. 9.)

"This Building stands at the southwest angle of the Fortress, and forms the principal entrance to the exterior line of fortifications. It is a strong Tower, flanked with bastions, and the gateway was originally defended by gates and portcullis."

With the exception of the chimney stacks, which have been cut down to roof level, this view has not changed in the last 150 years. Even the cast iron down-pipes and their hoper-heads are still in place. The reason for this degree of preservation is the simple fact that the Victorian restorers never visited the building. The majority of the stonework dates from the 1270s and the original construction. The stonework above the coping line relates to the heightening of the tower, perhaps in the fourteenth or fifteenth centuries, and above and between this stonework the brickwork represents an eighteenth-century refacing. Note the small cross-shaped openings seen just above the level of the railings in the north gate-tower. These are late medieval openings for handguns.

The label states that the gateway was originally defended by gates and portcullis; in fact both the forward devices survive in their medieval locations while in the chamber above the gate-passage the windlass to lift the portcullis is extant. Part of this remarkable piece of medieval carpentry may be original and has been improved by the later medieval addition of a second wheel and gears that enables the portcullis to be raised with greater ease. Lastly, the name "Byward" derives from "by the Warders" hall, a small building that stands just inside the gate-passage on the right and is now converted into an unprepossessing shop.

No. 176 "TRAITOR'S TOWER, FROM THE WHARF." (Fig. 10.)

"This is a large, square Building, formerly called St. Thomas's Tower, but having under it a private passage, by water from the Thames, through which State Prisoners were usually brought into the Fortress, it at length acquired its present appellation."

This is St. Thomas's Tower, the enormous watergate tower erected on the edge of the river Thames between the years 1275 and 1279. The water-filled basin beneath the tower extended to within 7 feet of the Bloody Tower and thus allowed surprisingly large craft to pass through the water-gate (Traitors' Gate) and moor within the confines of the fortress. The rooms above the basin were intended for Edward I no less and contemporary accounts refer to opening windows (a rare device at this date) containing colored glass, tiled floors and painted statues located on the riverside elevation.

This wonderful and unique view of St. Thomas Tower shows something of the myriad alterations and repairs that had taken place during the first 600 years of its existence. Much of the timber framing of the building, including a strongly structured roof designed to accommodate cannon, was reconstructed in time for the coronation of Anne Boleyn in 1533 to accommodate the Lord Chamberlain and the Lord Great Chamberlain, who attended the celebrations. In the bottom left-hand corner of the photograph may be seen a large arch that is mentioned in the sixteenth-century accounts. This void may have originated in the medieval period, being accessed by a moveable bridge, designed to protect the firing gallery formed in the thickness of the wall.

In 1683 much of the accommodation was occupied by a company of foot soldiers and four officers. In 1734 these facilities were converted into an infirmary by the architect and masonry contractor Andrews Jelfe who was responsible for the construction of the first stone-built bridge at Westminster. The small size of Jelfe's Portland Stone window openings presumably reflect the need for security in a military installation for they are
long and narrow and fitted with "Iron Grates". Below the windows on the left flank of the building is a much larger rectangular window also fitted with an iron grill. This provided light for the Boring Room, a facility installed and suspended over the water-filled basin in 1724. On a giant bench installed within the room, guns were bored with a machine powered by a water mill located in the northwest corner of the basin. This was a secondary function for the mill which existed to pump the waters of the Thames into giant lead reservoirs located on the roof of the White Tower that provided the fortress with its water supply.

The Dages & Harman view is the only known photograph that records St. Thomas Tower before it was subjected to a major restoration between 1864 and 1866 and its value as an historic record, therefore, is invaluable. The photograph also captures the fact that the Wharf was a very active area with ordnance stores stacked and ready for collection that includes sections of iron rails (bottom left of the picture) that were used to move heavy artillery in the field. The view also shows a large tarpaulin stretched over the Traitors' Gate entrance. This was intended to protect "ladies" perambulating the Wharf from the embarrassment of seeing naked soldiers using the water-filled basin beneath the building as a sort of giant bathing pool!

No. 180 "THE HALL TOWER." (Fig. 11.)

"This structure—sometimes called the Wakefield Tower, from the pris-
oners confined within it after the battle of that name, in 1460—is one of the oldest in the Fortress, and dates back as far as the reign of William Rufus, by whom it was erected. It is the supposed scene of the murder of Henry the Sixth, by the ruthless Gloucester.

No. 181 "THE MARTIN OR JEWEL TOWER." (Fig. 12.)

"It was from this Tower in 1673 that Blood made his notorious attempt."

This is an interesting and highly unusual view showing the rear elevation of the New Jewel House of the day. The New Jewel House, built in 1840-41, had an elaborate crenelated entrance flanked by towers within the Inmost, but the actual Jewel Room was sited on a brick vault within the Outer Ward, as the picture shows. By the time this photograph had been taken the open arcade that supported the Jewel Room had been infilled and the space within used as a lockup for errant soldiers of the garrison.

The new building was built under an unusual arrangement between the Ordnance Office and the Lord Chamberlain's Office who were responsible for the Regalia. The Royal Engineers designed and built the edifice with their costs to be reimbursed with surplus fees from public admission charges. In the event, the building proved to be something of a disaster and after the Jewels were moved to the Wakefield Tower in 1870, the building was demolished: for all their efforts the Royal Engineers never received a penny.

The Martin Tower escaped the hands of the nineteenth-century restorers and consequently contains remnants of bygone days dating back to the thirteenth century. These are too numerous and complex to describe here but it should be mentioned that the room with the large gothic window is where the Crown Jewels were displayed to the public from 1668 to 1842. Since seeing this picture I have returned to the records to check on the date of the window which was previously thought to date from the late nineteenth century. There are three openings of the same size and design and it is now clear that they were introduced in 1842 when the Royal Engineers converted the chamber into a kitchen for the Keeper of the Jewels whose rambling apartment occupied the rest of the tower and the upper floor of the adjoining New Jewel House.

No. 182 "THE CONSTABLE TOWER." (Fig. 13.)

"This Tower was formerly used as a prison. In form, and style of Architecture, it closely resembles the Beauchamp Tower, but is of rather smaller dimensions."

The view shown here is a photograph of a photocopy downloaded from e-bay I'm afraid, but something is better than nothing! Curiously the back of the card is annotated "London 10 mo. 15th 1862" which I presume translates as October 15th 1862, unless the author was using the Julian Calendar in which case the visit to the Tower was on the 15th December 1862.

Excluding the Constable Tower, this is another fascinating view. We can see the end elevation of the New Jewel House for the first time and even a glimpse of the 1805 extension to the Irish Barracks in the foreground. The fore­runner of this building was designed in 1668 and represents the earliest purpose-built soldiers' lodgings in England. Moreover the use of the word "barracks" in a document of 1670 appears to represent the initial entry of the word into the English language. The rather curious building between the extension to the Irish Barracks and the Constable Tower is a shed.

No. 184 "THE WELL TOWER." (Fig. 14.)

"The Well Tower was originally intended for a prison lodging. The lower part is all that remains of the original work. It is now designated the Devil's Battery."

The building nearest to the camera is, in fact, the Cradle Tower, the Well Tower (once my office) is the building with brick-built exten-
sion on the roof located beyond the drawbridge. For clarity I have included part of an elevation drawing (Fig. 15) dated 1876 showing the proposed restoration and removal of the historic accretions captured on the Dages and Harman view of the eastern arm of the riverside defenses.

The Cradle Tower, originally two stories high, is a delightful little tower on the riverside defenses that was constructed as a privy water-gate for Edward III. The fact that the work covered the years 1348-1355 can be explained by the arrival and intervention of the Black Death. The upper floor was removed in 1776 because it was deemed to spoil the view of the river from the new office of the Board of Ordnance lying immediately to the north. By this time the social status of the building had declined from royal entrance to Chandler’s shop. The river entrance was walled up in 1680 and was still blocked when the photograph was taken.

Further along the wall the photograph shows us the Middle Drawbridge with residents’ allotments occupying the area of moat in the foreground. The bridge as shown was constructed by the Royal Engineer’s Department in 1856 and replaces an earlier crossing laid out in 1774. At the same time the Engineers have replaced many of the earlier gun ports and crenelations along the curtain wall with gothic pastiche, but parts of the eighteenth-century gate-passage survive to this day.

Beyond the bridge and the Well Tower the top of the wall shows some large brick embrasures. This was the Seven Gun Battery which guarded the river approach to the Tower. It always accommodated some of the largest artillery pieces mounted in the Tower and its presence dates back to Tudor times. The Well Tower dates from the works of Edward I and the 1270s and I can confirm that for once the name means something, for in 1974 I found, and excavated, two large chutes in the floor of the
ground floor chamber that were clearly intended to draw water from the river Thames. During its long history this little tower has been occupied by more celebrated people than me. During the first half of the eighteenth century it was fitted out as the residence for the senior draughtsman at the Tower. The first two, Robert Whitehand and Clement Lempriere, played a leading role in setting up the Ordnance Drawing Room in 1716 that went on to become the famous Ordnance Survey of Great Britain and made such an important contribution towards the training of British engineers and draughtsmen in the eighteenth and nineteenth centuries.

No. 186 “THE BRASS MOUNT BATTERY.” (Fig. 16.)

“The Brass Mount is the largest bastion of the Tower, standing at the North-East angle of the Fortress. It has walls of immense thickness.”

As someone who labored away in a trench in the angle of the outer curtain wall and Brass Mount during the hot summer of 1981, the sight of this particular Dages and Harman photograph—metaphorically speaking—knocked me out. The top of the massive, strange looking buttress nearest to the mount was encountered by workmen digging trenches for new cables runs in the moat. After discussions, and some opposition, it was agreed that I could extend the trench area and carry out a small archaeological excavation to ascertain the date and function of this enigmatic piece of masonry. This happened, and although working on my own, I managed to enlarge the area and spend more time on the site than perhaps the Tower authorities had expected.

In summary my work revealed that the Brass Mount was not part of the original 1270s outer curtain wall and the accompanying great moat that still surrounds the fortress. Instead, Edward I’s engineers placed at least three stout, narrow, rectangular towers (similar to those found on some the great Edwardian castles in Wales) on the exposed northeast corner of the defenses. Boldly projecting out and down into the moat and quite possibly intended to accommodate stone-throwing devices—machines employed as much by defenders of castles as by their attackers—it was estimated that the masonry descended at least 12 feet below the present surface of the moat.

It seems that the Brass Mount was added some years later in the reign of Edward I and to make way for it at least part of the tower I investigated was taken down. The mount contains a formidable gallery within the thickness of the wall pierced with embrasures and arrow-loops and these, together with a set of latrine chutes, were found to be all lined with large bricks. It is tempting to equate the use of this material with 120,000 bricks ordered for the outer wall in 1283. Together with the 228,000 “quarell de Flandr” (ordered by the long hundred i.e. six score = 120) purchased from one John Bardown of Ypres in modern Belgium in 1276-8, the combined orders represent the first major use of brick in England since the demise of the Roman Empire.

When constructed the Brass Mount comprised a giant semicircular, open-backed, bastion. It was not enclosed until an order was issued in March 1559 when the “bulwerke in the mynte” was recommended to have “a byryke or stone wall made on the inside therof and filled full with earthe”. The infill was paved in order to support the heavy brass guns that were then mounted on the top of the bastion—hence the name “Brass Mount.”
When I excavated the site, stone samples were sent to the Science Museum for petrological analysis. The results showed that all the ashlar employed in the bases of the curtain wall and towers was Bembridge stone from the royal quarries on the Isle of Wight off the southern coast of England, while those found in the upper part of the Brass Mount were from Caen in Normandy (an English province at this time). This added weight to the argument that the Edward I defenses in this area fell into two periods of work. Where exactly the division in the curtain wall occurred could not be ascertained because of a crude refacing of the masonry by the Royal Engineers. However, the Dages and Harman photograph was taken before this event and a clear break in the masonry can be seen half way up the wall on the left hand side of the picture. Finally, the photograph includes a unique view of the only surviving small tower in its unrestored state. In the seventeenth and eighteenth centuries documents refer to this structure, not surprisingly, as the “Little Tower” and in February 1682 it was recommended that two small guns should be placed in the upper room of the tower which is described as 5 feet wide and 12 feet long. In 1861 when this photograph was taken the guns appear to be mounted on the roof.
No. 187 “GROUP WARDERS AT THE TOWER.” (Fig. 17.)
This is perhaps one of the earliest photographs showing the Body of Yeoman Warders wearing the uniform of today. The uniform was introduced in November 1858 to a design by Messrs. Batt and Son of Edwards Street near Portman Square and replaced an earlier dress that originated from Tudor times. All the warders are wearing the State Dress Uniform though there is one Warder on the far right of the picture attired in the normal Blue Undress.

The Warders are ranged on the flight of steps located immediately to the west of the White Tower that were laid in 1846, together with the retaining wall on the left, to replace a rather steep road that had crossed the site for hundreds of years.

No.188. “GENERAL VIEW OF THE TOWER FROM TOWER HILL.” (Figs 18 & 19.)
There are two variations of this view. One is taken at ground level near the summit of Tower Hill, the other to the south, closer to the river, and almost certainly from a window in the Mazawatee warehouse. This giant building dominated Tower Hill until its violent end at the hands of the Luftwaffe during the Second World War. However, large glazed-tiled wine vats introduced into the building during the early years of the twentieth century remain in the surviving basements and are protected by listed building legislation. They are located behind a fast food outlet where tourists gnaw on MacDonald’s burgers.

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First “Lumiere Awards” for 2009 3-D Movies

For 81 years we have watched the Academy Awards presented for Best Picture, Best Director, etc. Those of us who love 3-D have sometimes wondered why there was no category for Best 3-D, if for no other reason than to set a standard for dimensional quality in 3-D filmmaking. We are delighted to finally see that there are many films being done in 3-D, and that there are now enough to warrant a real recognition of the best in many 3-D related categories. A new award, and a new organization, have recently been created to fill this 3-D gap.

Tuesday, Feb. 23, 2010 was a historic evening, as Susan Pinsky and I were fortunate to be able to attend the first ever International 3D Society (I3DS) “Lumiere Awards” at Hollywood's Mann Chinese Theater.

In the 3-D business for over thirty years, we’ve watched the interest in 3-D filmmaking come and go (in the early 1980's). However, since 2000, when only one 3-D commercial film was produced, 3-D films have grown from two in 2002, four in 2003 and 2004, five in 2005 and 2006, eight in 2007, ten in 2008 and now a serious 17 in 2009, with many more than that scheduled to be released in 2010 and 2011. We never thought we’d see this day!

Susan and I were able to attend the I3DS awards ceremonies, as I was honored to be asked to be one of the judges, along with about 100 other judges chosen from various positions in both the 3-D and film communities. The judging was done in advance, using an online ballot system.

The purpose of the awards is to honor talent—both in front of, and behind, the cameras—within the rapidly burgeoning 3-D filmmaking industry. Avatar walked away with six “Lumiere Awards” and the first-ever “People's Choice Award for Favorite 3D Movie - Live Action” during the event, with that film’s co-star, Giovanni Ribisi, accepting on behalf of the filmmakers.

Actor Brendan Fraser was the recipient of the International 3D Society's “3D Talent” Award. Fraser was honored for his work as both actor and executive producer of the highly financially successful 3-D feature film Journey to the Center of the Earth in 3D. The I3DS also recognized Jeffrey Katzenberg, 3-D visionary and CEO of DreamWorks Animation SKG, Inc. Katzenberg and DreamWorks Animation were presented with the prestigious “3DVision” Award.

Eleven additional Lumiere Awards and two first-ever People's Choice Awards in 3-D were given out, during ceremonies in which over 400 people, including leading entertainment industry producers, directors, performers, and technology company executives were in attendance. The additional award winners were:

**Live Action 3D Feature of the Year:**
*Avatar*, 20th Century Fox

**Animated 3D Feature of the Year:**
*UP*, Pixar

**Short 3D Motion Picture/Narrative:**
Partly Cloudy with a Chance of Meatballs, Pixar

**Best 3D Documentary:**
*Under the Sea 3D, IMAX*

**Outstanding Achievement of 2D to 3D Converted Feature:**
*G-Force*, Sony Imageworks and Walt Disney Studios

Best 3D Character of the Year:
*Avatar's "Neytiri"

Best 3D Scene of the Year:
*Avatar* and Jake Sully for “First Flight”, 20th Century Fox

Best 3D Stereography - Live Action:
*Avatar*, 20th Century Fox

Best 3D Stereography - Animated:
*Coraline*, Focus Features

Outstanding Achievement in 3D Visual Effects:
*Avatar*, 20th Century Fox

Outstanding Achievement for Marketing 3D Content:
20th Century Fox for *Avatar*

Additionally, the I3DS had previously partnered with the People’s Choice Awards, where nominees in the category of "People's Choice Awards in 3D" were announced during the January 6, 2010, telecast of that event. Fans voted online through January 20th, selecting the two, first-ever People's Choice Awards in 3D winners as:

**Favorite 3D Live Action Movie:**
*Avatar*, 20th Century Fox

**Favorite 3D Animated Movie:**
*Coraline*, Focus Features

I3DS president Jim Chabin stated, “The presentation of the First Annual International 3D Awards has marked an historical milestone. They represent the first time in motion picture history that achievement in the 3-D art form has been recognized. We believe tonight's event was just the beginning of a lasting and appropriate recognition of 3-D professionals by..."
the international filmmaking commu-
nity."

3D Awards Co-Chair and Board of Governors member Charlotte Huggins, a film producer with Salient Features, remarked, "For those of us who’ve worked in 3-D and labored to bring magic to the screen, 2009 was an incredible year, and 2010 promises to top even our wildest expectations."

Added Awards Co-Chair and First-Vice Chair Lenny Lipton, president, Oculus3D, "For a long time, many have wanted to create an appropriate recognition for outstanding achievement in the spectacular medium of 3-D. With the support of a great many, the establishment of the new International 3D Society represents the first community to finally accomplish the bestowing of appropriate awards."

The beautiful Lumiere statuettes presented at the ceremony are of "Aurora, the Roman goddess of dawn". They were designed and sculpted by renowned artist Eileen Borgeson, and were crafted in gold and bronze by the R.S. Owens Company of Chicago, manufacturers of the Oscars Awards. Tickets for the event were supplied via a small Lumiere lapel pin for each attendee.

Unlike the Oscars and other film award ceremonies, entertainment was not a major component of the presentations. Announcements of each category, the winner of that category, and presentation of a short 3-D clip from the winner in each category, moved things along at a very rapid pace. After a social hour, the ceremonies themselves were completed in less than the 90 minutes estimated.

Susan and I both feel that the 3DS did an outstanding job of organizing an important and professionally run ceremony. In a community where awards, a bit of glitz, and sharing of technical information can be quite important, this helps add to the legitimization of 3-D as a permanent and viable option for the film community. With over 17 3-D feature films released 2009, and a large slate of 3-D films set for release in 2010 and 2011, 3-D may finally be here to stay.

Perhaps one indication that 3-D is being taken seriously in Holly-
wood is that, in 2009, the Academy of Motion Picture Arts and Sciences outfitted its 1,012 seat Samuel Goldwyn Theater in Beverly Hills, California with a Dolby® 3D Digital Cinema system to allow screenings of 3-D films for Academy members.

Based in Los Angeles, the newly formed International 3D Society serves the 3-D community with the mission to advance the arts and sciences of 3-D technologies and content through educational initiatives as well as providing “hands on” demonstrations and recognition for stereoscopic 3-D professionals. The Society’s Board of Governors and its general membership span the growing stereoscopic industry, with representatives from the major studios, home, producers, technology suppliers, exhibitors, and distributors.

With Jim Chabin serving as its president, The International 3D Society’s Board of Governors include: Dr. Marty Banks, UC Berkeley, Board Seat, The Walt Disney Studios; Sandy Climan, 3ality Digital, CEO; Maria Costeira, XpanD, CEO; Rob Engle, Sony Pictures Imageworks, 3D Visual Effects Supervisor; Charlotte Huggins, Salient Features, Producer, Peter Koplik, Master Image 3D, EVP; Brian Lenz, BSkyB, Director, Product Design & TV Product Development; Mike Polydoros, Lionsgate, EVP of Exhibitor Relations/Operations, and Kurt Schwent, Paramount Pictures, VP of Post Production Services.

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The Sangre de Cristo Mountains, commonly known as the Sangres, form the southernmost subrange of the Rockies, located near the center of southern Colorado and northern New Mexico. Hidden in the valleys between the peaks and on the slopes of others are strings of lakes, some no bigger than ponds, which are favorite destinations of hikers and climbers.

NSA member Wojtek Rychlik has produced an indexed atlas of over 200 color anaglyphs of these lakes and mountains in the form of an e-book CD viewable on any computer. *Lakes of the Sangres in 3D* presents astounding aerial hypers revealing the textures of the peaks, canyons and sheer cliffs surrounding these lakes, often from several angles. The atlas is divided into sections, each introduced with a U.S.G.S. map and a satellite photo identifying the area in which the following several lakes and peaks illustrated are found. Lakes within a 110 mile long section of the mountains in Colorado are shown in sequential detail than makes possible a virtual hike past each one, scrambling over the mountains and canyons concealing them from almost any vantage point but a satellite or aircraft. The rugged mountain details revealed in hyperstereo give most of these images a considerable “wow” factor, which would make seeing the stereos projected in normal full color on a large screen a real treat.

The images range from extremely hyper long shots showing several peaks and parts of ranges including the horizon beyond, to relatively close shots of individual lakes in which surrounding trees, trails and the streams feeding them can easily be seen. On a computer screen, these carefully color-adjusted anaglyphs show virtually no ghosting in even the highest contrast details, and the few window problems resulting from elements too close for the hyper separations are largely negated by wide floating frames around those images. As with any anaglyphic CD, brightness and contrast adjustments on your screen may help. (The most impressive results I found were with an old Sony CRT screen.)

A printed version of the book is also now available, which we hope to review soon.

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"Lily Lakes, view from the northwest." Found on the Blanca Massif U.S.G.S. map, the lakes are at 12,350' and 12,630' elevation in the Huerfano Basin between California Peak and Huerfano Peak. The image is on page 61 of *Lakes of the Sangres in 3D* (PDF page 63). ©2010 Wojtek Rychlik.

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*Lakes of the Sangres in 3D*


Hard copy book, ISBN 978-0-9842554-5-0, (not reviewed) is $49.99 from the same address.
Soaring aloft into 2,150 3-D theaters (plus another 2,000 2-D cinemas) on March 26, *How to Train Your Dragon* from Dreamworks Animation, distributed by Paramount, struck critical gold and entertained audiences with a clever coming-of-age tale that was sweetly humorous and fast-paced but also exhibited an uncommon wisdom of the heart for a computer-generated animated feature.

Directed by Dean DeBlois and Chris Sanders and based on the popular children's fantasy novel by Cressida Cowell of the same name, *Dragon* is set on the Island of Berk in an age of terror for the Viking clan residing there and enduring periodic assaults from the air by a variety of fire-breathing dragons. The aerial action of the dragon flights is sweepingly stereoscopic and the variety and design of the scaled creatures is highly imaginative, from the two-headed Hideous Zippleback to the Monstrous Nightmare. But it is the black-scaled Night Fury, breathing fire and quite elusive, that is feared most of all.

And it is the Night Fury, wounded and flightless, that the young hero Hiccup, expertly voiced by Jay Baruchel, has the good fortune to encounter in the wilderness one day. Like Androcles and the Lion, Hiccup comes to the aid of the Night Fury, feeds him and assists him, through some special carpentry, in regaining flight. Along the way Hiccup discovers that the dragon clan actually lives in a state of fear as much as the Vikings in his own village.

All of this is kept secret by Hiccup from his father Stoick (Gerard Butler) a comedically hirsute caricature of male bluster who the smart and sensitive scion wants to please. At the same time, Hiccup and his fellow adolescents on Berk are enlisted in a dragon-slaying class conducted in a wooden arena by Gobber (Craig Ferguson). In the dragon-slaying workshop is the tomboy Astrid (America Ferrera) tougher than any of her adolescent male peers and continually punching Hiccup, who carries a flame for her, on the arm.

The fairy tale rendering of the Viking village, seen in aerial vistas, and the craggy faces of ocean-facing cliffs and caves on the island are all terrific in 3-D. There is great humor in the continuous juxtaposition of human characters with anthropomorphic dragons and an underlying empathy is suggested which renders the Viking terror even more pointed and poignant.

Not to read too much into this animated fantasy of an olden time, but I couldn't stop thinking about the way that fear in a cultural consensus (think 9/11/homeland security) renders a society backward. Terror is atavistic and unreasoning. And, as this sweetly poignant tale illustrates, it can render one blind to the simplest solution to a seemingly complex social dilemma.

Once again, the 3-D team on the "stereo campus" at Dreamworks...
Hiccup learns to fly on the back of the fire-breathing Night Fury. ©2010 Dreamworks Animation

Hiccup teaches his peers how to befriend a dragon. ©2010 Dreamworks Animation

Hiccup shares the secret of flying on a dragon with Astrid. ©2010 Dreamworks Animation

Astrid is tougher than any of her adolescent Viking peers. ©2010 Dreamworks Animation

Hiccup’s adolescent peers take flight on a two-headed dragon. ©2010 Dreamworks Animation

Animation, under the guidance of Phil "Captain 3D" McNally, has rendered a stereoscopic feature, 1 hour and 37 minutes long, that is easy on the eyes but has moments of great depth, visually and emotionally.

One of the really intelligent solutions to matching depth over the edit points that Phil, with the assistance of software plug-in wizard Paul Newell, has derived is to animate parallax values over the “cut.” “Out” and “In” points are made to match seamlessly, unknown to the audience.

This minimizes binocular work on the part of the 3-D movie patron who has to continually “decouple” accommodation (focus) and vergence (convergence) in the theater. This is one of the prime considerations in making a 3-D movie that is easy to view over an extended period of time. And, of course, there is once again a deft use of dynamic variable interocular values with “multi-rigging” of different elements in a single shot, as well as a very sophisticated application of the animated floating stereo window throughout the feature.

All the elements—story, acting, design and 3-D come together beautifully in Dragon, with a tale that will, I’m sure, stand as a perennial classic in the annals of stereoscopic cinema.
Peter Gowland 1916-2010

Peter Gowland, whose exuberant, sun-drenched swimsuit photos and self-designed large-format cameras helped define glamour photography for six decades, died March 17, 2010 at his Rustic Canyon (Santa Monica, CA) home. He was 93 years old.

Best known for his glamour photography, Gowland shot more than 1,000 magazine covers. He lectured on glamour photography throughout the United States and Europe and was the author of 26 books on photography.

One of his earliest books was The Art and Technique of Stereo Photography in 1954. A unique aspect of the deluxe edition of this book is that it came with two black and white 35mm film strips with copies of five stereo pairs of his iconic images. It was left up to the reader to obtain stereo mounts and read the chapter on stereo mounting in order to mount and view the images. (There was also a smaller format version of the book, which did not have the stereo filmstrips included.)

Around 1979, while doing research for Reel 3-D News Susan

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Best known for glamour photography, Gowland had a 3-D connection, as seen in this stereo of a studio lighting setup. Gowland and his wife were also active in environmental efforts. In the 1960s they made a film to save Rustic Canyon Creek and another which saved a beach from a highway project. In the 1980s they helped lead a fight against Santa Monica oil drilling.

and I visited he and Alice, his wife since 1941, in their custom-built 1955 home. The home was designed with a photo studio, dressing rooms, and a swimming pool with an underwater viewing port made for photography. One item which left quite an impression on us was a "Stereo 50" sequential viewer with 50 stereo slides documenting the construction of their house and swimming pool. This inspired us to eventually seek out a "Stereo 50" viewer of our own!

Special cabinets housed all of his 2"x2" & Stereo Kodachromes, neatly cataloged in shallow drawers. At that time they were gracious enough to show us many of the original stereo images, and even gave us a few "outtakes". Several of these were used in the "Susan's 3-D Potpourri" slide show that was shown at the Paris ISU convention in 1991.

Along with his wife, Gowland is survived by daughters Ann Macmillan of San Francisco and Mary Lee Gowland of Coarsegold, CA; granddaughters Lauren Macmillan of Westlake Village and Tracy Rosenthal Newsom of Boston; and great-granddaughter Camile Newsom, also of Boston.

- David Starkman
Letters (Continued from page 3)

In any case it is unlikely that most users will have enough information or take the pains to do that arithmetic in the heat of the action. Winging it will sometimes do the trick, almost anything will look stereo in any case. The important consideration is that each time you get only one go at the view and then have to go back to the start. This may be satisfactory for hypo-stereos but could mean a lot of back and forth travel for trial hyper-stereos and, in the case of shooting from a moving vehicle, mean no chance for a second try.

If we stick with the basic Fuji approach in order to get to see the stereo result on Playback, I suggest that another plan would provide greater opportunities for success.

Let’s allow the stereographer to take a single exposure for one side of the pair and a selected number (option: 1 to 9?) of exposures for the other side. The first exposure would be used for all the pairs, those following providing variations in lens separation. This would be available in both the individual shot and interval shot modes. While “winging it” the camera would be moved over a progression of distances, tiny to great depending on the subject, a new pair would be generated and saved for each shutter press or timed interval. Upon completion, Playback review would allow evaluation of the results.

The camera would require a sufficiently large save buffer for possibly nine pairs to be shot in rapid order. The opportunity for success should be greatly enhanced. There would be a choice between user control and automatic as well as of quality of image. One would not want to shoot small sized hypers from an airliner.

As the camera is currently fitted out, it would seem possible to implement some degree of this idea with a simple revamping of the firmware.

As it stands, calling this an Advanced Mode may fit the case of auto-shooting newcomers but, with its limitations, is anything but advanced for the experienced stereographer. The latter is probably better off using the 2-D mode in the same fashion as any single camera in order to be able to control the parameters of each shot for optimum results. After Stereo Photo Maker adjustments are made, an MPO file could be transferred to the camera storage card for sharing with others on the camera display.

Fuji needs to come to grips with who the customer is for this and future iterations in the realm of 3-D. Maybe both a beginner’s mode and a true advanced mode. Much could be done with new firmware for the present model.

Bob Pfeiff
Seneca Falls NY

NewViews (Continued from page 7)

3-D glasses at the conclusion of each show, discarded glasses, or pairs not returned end up in trashcans and ultimately in landfill sites. The goal here is to supply biodegradable/compostable 3-D glasses, reducing the amount of harmful petroleum-based contaminants placed in landfills.

Current 3-D glasses are made of traditional fossil fuel plastic and are not biodegradable. The CO2 emissions for the more than 10 million plastic glasses is equivalent to burning 50,000 gallons of gasoline or 917 barrels of oil. The Occlus3D eyewear will feature Cereplast’s Compostables® resin made with Ingeo® Poly-lactic acid (PLA). These resins allow for the manufacturing of glasses made of renewable material and create a truly compostable product. If discarded at a compost site, the 3-D glasses will return to nature in less than 180 days with no chemical residues or toxicity left in the soil, according to Cereplast, www.cereplast.com.

Rotoscopes and Deities (Continued from page 9)

showings. It was estimated that Dragon dropped 5% of its box office after having to make way after only a week on 3-D screens for Clash.

There has been some “saber rattling” about stereo conversion as well, especially since tickets for 3-D movies sell at a premium of three additional dollars. One nameless observer in the LA Times characterized the trend for stereo conversion as “shoddily upscaled 3-D showings” and admonished “Either earn our spectacle dollars with innovation worthy of the silly glasses or watch this cash cow become a faa all over again.” Such warnings are prevalent, even with the success of Clash in 3-D. “The downfall for 3-D,” stated Brian Paseornek, president of motion picture production for Lionsgate Films, “is going to be a lot of crummy conversions.”

Now that Avatar has generated $2.7 billion worldwide with 80% of its $740 million domestic box office dollars coming from 3-D screens, what does its director James Cameron have to say about all of this? “It’s typical of Hollywood getting it wrong,” he told an interviewer on MTV. “Now it’s being crammed down from above and now people are being told to make movies in 3-D, when it should have been the other way around.”

After watching Alice and last year’s G-Force in 3-D at the movie theater, there’s no question that stereo conversion can work very well and can even be a superlative form of stereoscopic art. As a labor-intensive process, it just takes time. Bad music hasn’t killed the art of musical composition. Ugly artwork hasn’t killed the art of oil painting. The public and visual culture in general is just catching on to the fact that there are many levels of quality that are possible with stereography. Even though bad 3-D may appear, the art form, as well as the market, for stereography will continue to thrive with increasing prevalence in all forms of visual display.
Hyper/Hypo (Continued from page 13)

hyperstereos, which leaves the area of hypostereos a bit neglected. Hypostereo is a stereo pair taken with a base smaller than the distance of the eyes, or Fuji's 77mm lens spacing. When taking close ups, it is easy to just point the camera and shoot. But many times reducing the stereo base will give better results. Some examples: Nature close ups (of non-moving objects), objects in displays (usually behind glass) in museums, etc. Fig. 7 shows a hypostereo that I took recently at the New Orleans Insectarium. One advantage of taking pictures of display objects behind glass is that you can support the camera on the glass and get sharp pictures using available light and slower shutter speeds.

One tip regarding hypostereos with the Fuji: The camera has a macro mode which allows you to focus close. This mode does not work in 3-D but it will work in "advanced 3D" mode. When you are ready to take a close up with the Fuji, make sure that you use the macro mode.

Experiment Freely

Stereo pairs with wide (hyper) or narrow (hypo) stereo base are a very interesting area to explore. Now, with digital photography, experimentation has become easier and less expensive. The Fuji 3-D digital camera combines the advantages of digital with special functions that make these single-camera pictures easier and more fun. Even though the emphasis in this article was on taking hyper/hypo stereos with the Fuji, the basic principles apply to any camera. Plus, I expect future digital stereo cameras to offer features for single-camera stereos, similar to Fuji's.

More about shooting with the Fuji W1 will be presented at the author's Workshop during the 2010 NSA convention in Huron, Ohio, July 14-19. ☺

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These folks are preparing to depart the docks of Sandusky, Ohio for the NSA convention nine miles east at Sawmill Creek Resort near Huron. Determined to save every last cent for the Trade Fair and room hopping, they've decided to row the distance on lake Erie rather than buy a ticket on one of the steamboats in the background. Lacking confidence in their rowing skills, they are leaving about 120 years early to allow time for the effort and to pose for stereographer A. C. Platt, who no doubt found their mission a bit eccentric. For more, see www.StereoWorld.org/2010. (John Waldsmith collection)
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<table>
<thead>
<tr>
<th>Description</th>
<th>Price/100</th>
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<td>NEW CDV (2.3/4&quot; X 4.3/8&quot;)</td>
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<td>CDV POLYESTER 3-mil 3.8/8 X 4.3/8</td>
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<td>4&quot; x 6&quot;</td>
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<td>16&quot; X 20&quot;</td>
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- Chrome/Putty Glasses: Black Lens with Custom Print
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← Left: Helene Leutner
(German Actress)

→ Right: The Young Velocipedist

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

→ Right: View from the wood car, behind the locomotive in full motion.

← Left: Tissue Genre View.

→ Right: General U.S. Grant