FREEVIEW

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The Atlanta Stereographic Association was formed in 1990 to promote all forms of stereoscopic photography by its members and to the general public.

Meetings are held the 2nd Friday of each month, and start at **7:30 p.m.**, at the **Congregational Church**, 2676 Clairmont Road, Atlanta Georgia.

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Membership Dues for 2011:
$30.00 for an individual,
$30.00 for couples, and
$30.00 for non-local members.
Free for Off World members.
Dues to be paid to Marilyn Morton at meetings, or mail her a check at 1139 St. Louis Place, Atlanta, Georgia, 30306

Website:
Our website is **Georgia3d.com**; it contains details about the ASA and ge

Refocus That Please – By Ralph Reiley

There were 15 people at the May meeting where the **Atlanta Stereographic Association** judged the May 2010 **ISCC** slide entries. See page 2 for details.

Note that due to our meeting room rent being raised, for the first time ever, dues have been increased to $30.00 for everyone.

On August 14, 2010, at the Fish Camp, the annual ASA Planning Meeting was held. We spent about 15 minutes in planning, the rest of the time was spent in conversation, showing off recent acquisitions, eating, drinking, and generally having a good time. We are so fortunate that Larry provides the club access to the Fish Camp, a true oasis of tranquility just a few minutes outside of town.

September Program – Sept. 10, 2010:

The September meeting will be a Digital Image competition, each club member may submit up to four (4) images. Re-size your image to 1400x1050 format. Contact Steve or Suzanne for details. There will also be a digital slide show, yet to be determined. The meetings this year should be interesting. I am looking forward to Chuck's Cape Canaveral show in January, even if it will be in 2-D. Also of note are the Stereo Card Workshop in October, and the Digital Projection Workshop in March. Both workshops will be presented by Steve Hughes, who is a master of digital projection and stereo card manufacturing.

The meeting is the 2nd Friday of this month, Sept. 10, at 7:30 p.m. at the **Congregational Church**, located at 2676 Clairmont Road, just south of I-85, see our website at **Georgia3D.org,** for a map to the church. If you have any questions call Ralph Reiley @ 770-493-1375, reileys@att.net. We meet at the Fortune Cookie in Loehmann's Plaza at Briarcliff and North Druid Hills at 5:30 p.m. for dinner and conversation before the meeting.

Tentative Schedule for 2010-2011 ASA Club Season*:

*Note: This is a tentative schedule and subject to change.

Sept. 10, 2010:	**Digital competition & Digital Slide Show**
Oct. 15, 2010:	**Stereo Card Workshop & Stereo Card competition**
Nov. 12, 2010:	**PSA Sequence Show & Slide competition**
Dec. 10, 2010:	**Christmas Party at the Fish Camp with Digital extravaganza**
Jan. 14, 2011:	**Chuck "Buck" Rogers Cape Canaveral & NASA slide show**
Feb. 11, 2011:	**PSA Traveling Show & Slide competition**
Mar. 11, 2011:	**Digital Projection Workshop & Zeppelin, a digital slide show**
April 8, 2011:	**View Master extravaganza & Stereo Card Competition**
May 13, 2011:	**Year End Awards & TBA**

NSA ISU PSA Photographic Society of America ASA ATLANTA STEREOGRAPHIC ASSOCIATION

ISCC UPDate:

The ASA judged the entries for the ISCC at our May meeting. Three judges were chosen to judge the slides, and the final results for the 2009-2010 ISCC are:

ISCC Stereo Camera Clubs:

Sydney Stereo Camera Club	173
Stereo Club of Southern Cal.	163
Puget Sound Stereo Camera Club	163
Detroit Stereographic Association	157
Atlanta Stereographic Association	**139**
Cascade Stereoscopic Club	135

ISCC Image of the Year:
Green Iggy, by **Steve Hughes**

Congratulations to the Sydney Camera club and to Steve Hughes.

Green Iggy:

ISCC Image of the Year

By ASA's own **Steve Hughes**.

Congratulations to Steve for a well deserved honor.

NSA OHIO, UPDATE:

The NSA convention Huron Ohio was a big success. As it was my first NSA Convention, I will provide my insights into the event. I was quite impressed with the work the organizers had done, everything about registration went smoothly, and took just a couple of minutes to complete. The Stereo Theater was totally digital and despite a few technical problems, the quality of the images was the best I have ever seen. Steve Hughes, who was not officially supposed to be dealing with projection, was called in a number of times to help solve some problems. The Trade Fair was quite impressive; I have never seen so many 3-D related objects in one place before. The Trade Fair was worth the trip alone. The Awards Banquet was a lot of fun, and I met some very interesting people from Pennsylvania and Ontario. I invited them to join the ASA, but I have not heard back from them. Fuji had a raffle, and 5 of their new cameras were awarded as prizes. The keynote address by Brian May was very interesting, as was his book, ***A Village Lost and Found.*** I have to say, Mr. May is a bit of an overachiever: Rock star with Queen, PHD in astronomy, Astrophysicist, 3-D collector, and author. However, he seemed to be a very genuine person. I had no idea that he was a rock star, and just thought of him as just another 3-D Hound, which of course he is. He signed my copy of his book, as if he knew me, which was very kind of him. It has impressed many friends of mine who care doodly squat about stereo, but are impressed that I met the lead guitarist from Queen. The ASA was well represented at the club. Bill Moll, Larry & Julia Moor, Steve & Suzanne Hughes, Lee Pratt, Andrea Shetley, Robert Dallas, and I were there. If I have forgotten anyone, please forgive me. I highly recommend the NSA Convention to anyone who is interested in Stereo, the entire range of 3-D imagery was well represented from the earliest days up to the latest and greatest things going on today.

Ralph Reiley

Brian May, lead guitarist for Queen, PhD in Astronomy, and Author of A ***Village Lost and Found***, signing copies of his book at the Ohio Convention. His keynote address about his book and the work of T.R. Williams was excellent.

Masuji Suto, developer of **Stereo Photo Maker**, and David Starkman at the trade fair during the NSA Convention. **Masuji Suto** and **David Sykes** were both given special awards by the **NSA** to honor their hard work in developing Stereo Photo Maker, which has revolutionized 3-D photography.

Technical Page by Charles A. Piper

Installment #14

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THE EYE AND THE CAMERA

To understand stereo photography, its strengths and its limitations, it is important to compare and contrast the eye and the camera as optical devices. The common assumption that a stereo camera is equivalent to a set of human eyes has led to a number of misconceptions. This month we identify the pitfalls in this assumption.

THE EYE. The eye is basically a pinpoint scanning device combined with an area light sensing capability. The eye sees clearly only in a small center spot called the fovea. The rest of the field of the eye is only sensitive to light, color, and motion. It provides inputs to tell the brain how to orient the fovea in order to examine the details of the subject matter. Because the eye has a single lens, it has many optical aberrations, which are held within acceptable limits only because the eye typically operates at a small aperture, say f/11, and only the center of the field is used for sharp imaging.

STEREO EFFECT. Two eyes can act together, their foveas oriented to the same object, so as to give an estimate of distance. The muscular reaction required to converge the eyes on the object is interpreted by the brain as a distance. The difference in convergence for two objects is interpreted as a difference in distance. See also #32.

THE CAMERA. The camera, in contrast to the eye, is an extended area imaging device. It is designed to give a flat undistorted image perpendicular to the axis of the lens. The camera has no scanning ability, but it does have large useful apertures and large undistorted, sharply imaged fields. We thus see that an eye is not a camera, and a camera is not an eye. This distinction is significant for all photography, vital for stereo photography.

HOW A CAMERA SIMULATES AN OBJECT. The camera produces an extended sharp image on a print or transparency. This image can then be placed in front of the eye. The eye can now perform a pinpoint scan of the image, just as it would scan the real object.

THREE DIMENSIONAL SIMULATION. We can simulate an object in three dimensions if we prepare two extended images of the object taken from two points separated by a suitable horizontal distance. These images should be of identical magnification, and could be made by the same lens, located successively in two separate positions but maintained parallel to a fixed direction in space. The images could also be made simultaneously by two identical lenses mounted with their axes parallel. In either case it is important that the two images have as nearly as possible identical magnification in all parts of the picture. This can only be achieved if the two lenses have the same focal length and are oriented with their axes parallel.

VIEWING THE IMAGES. Now, given a pair of left and right images, we place these images in front of the observer, at such a distance as to preserve the perspective. He may now view these images just as he would view the objects themselves. Specifically, he scans the images so that an item of interest in each image is in the fovea of the corresponding eye. He is now viewing an object in the picture with the same subtended angle and magnification with each eye, just as he would have done if the real object had been before him.

PERSPECTIVE IN STEREO. In our discussion of perspective last month, we noted that to preserve an illusion of reality we must view a picture so that objects subtend the same angle at the eye of the viewer as they did at the camera. Correct perspective preserves the relative distances of objects in the picture. In stereo the problem of representation has another element, namely apparent size. In one eye photography the viewer's only clue to real size is his recognition of the object and his mental conception of its size. However in stereo the viewer gets a direct clue to the size of the objects in the stereogram. He sees a subtended angle, and, due to the two-eye nature of the representation, he also senses the apparent distance of the object. He therefore senses an apparent size. It turns out that in stereo we must preserve perspective, but we are free to adjust the apparent size according to how we select the separation of the lenses recording the images. This results in hyper stereo with enhanced separation, and hypo stereo with decreased separation.