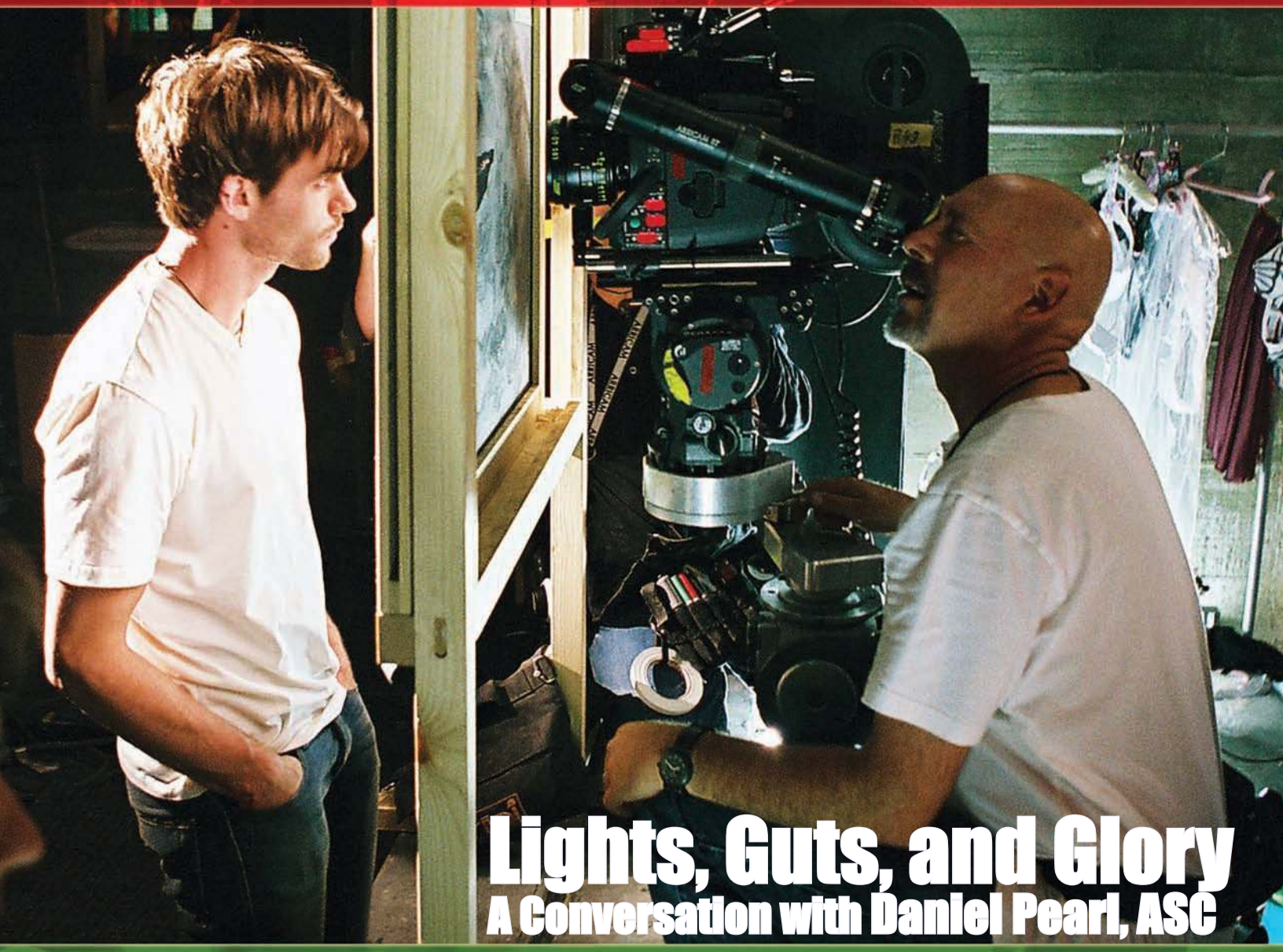
December 2007

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Lights, Guts, and Glory
A Conversation with Daniel Pearl, ASC

Tech Focus:
HD Lens Adapters

Clearing the Air with Filters

Reduce Your Film's Carbon Footprint

4 Tips for Shooting HD

M. David Mullen, ASC: *Insights* Column

Time-Saving Techniques for Editors

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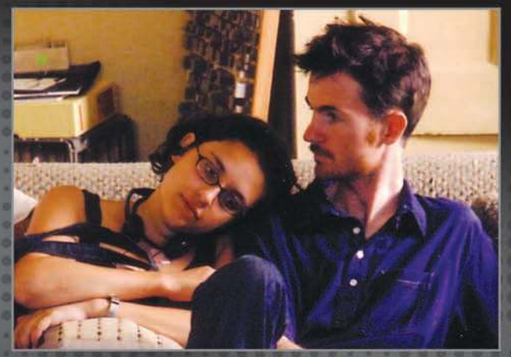
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On the Cover
Daniel Gillies and Daniel Pearl, ASC on the set of *Captivity*. Photo courtesy of After Dark Films.



As we approach completing this wonderful and exciting year with our 21st edition going to press, we've just returned from back-to-back industry tradeshows and project deadlines. I think our staff can deeply associate with the cover headline "Lights, Guts, and Glory." *StudentFilmmakers* magazine exhibited as media sponsors for the Hi Def Expo in Burbank, California; the Government Video & Technology Expo in Washington, DC; and the LDI show in Orlando, Florida last month. *StudentFilmmakers* magazine thanks each and every one of you who attended these conferences. It was a pleasure meeting you on the exhibit show floors and at our exhibit booths. Enjoy the complimentary subscriptions, and please send me your feedback.

We invite you to visit the website at www.studentfilmmakers.com for more networking opportunities, news and free VIP passes to key tradeshows within the film, video, and digital media industries.

Some of the visitors to our exhibit booth at the HD Expo show included M. David Mullen, ASC (*Solstice*; *Big Love*; *The Astronaut Farmer*); Adam Biddle (*Marked*; *The Gnostic*; *Crank*); and the magazine's very wonderful readers and supporters from the west coast. Go straight to Mr. Mullen's Insights column in this issue, and read his latest lighting article, "When Cheating is Good," on page 16.

This edition's cover story is an extreme close-up on Daniel Pearl, ASC, whose recent films include *Aliens vs. Predator 2*, directed by The Brothers Strause; *Captivity*, directed by Roland Joffé; and *Pathfinder*, directed by Marcus Nispel. Read the in-depth interview, "A Conversation with Daniel Pearl, ASC; *Award-winning, Legendary DP Talks Lights, Guts, and Glory,*" on page 46.

Next up for events is Digital Video Expo 2007 in Los Angeles, CA, which is taking place December 4 through 6, at the Los Angeles Convention Center. Don't forget to visit our exhibit booth, sign up for a complimentary subscription to the magazine, and pick up featured back issues.

StudentFilmmakers magazine will also be exhibiting at Video '08, the 4EVER Group's annual videographers' conference and trade show, to be held January 21 - 24, 2008 in Orlando, Florida.

Looking forward, we will see you again in the west coast, as we exhibit at the next Hi Def Expo show on March 6, 2008 in Beverly Hills, California.

Thank you for helping us make this another successful year for *StudentFilmmakers* magazine. Wishing you the best for the holiday season, and another fantastic year together. Keep us updated on all your successes, upcoming films and productions.

Happy New Year!

Truly,

Kim E. Welch
Publisher/Editor-in-Chief

studentfilmmakers

The # 1 Educational Resource for Film and Video Makers

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Senior Editor Jody Michelle Solis

BPA WORLDWIDE

Contributing Writers
Thomas Ackerman, ASC, Anthony Q. Artis, Jeff Bellune, Adam Biddle, Julia Camenisch, Chris Cavallari, Mark Cheng, Michael Corbett, Vanessa Daniels, Keith Dearing, Todd Debreceni, Jeff Deel, Dana Dorrity, Paolo Dy, David E. Elkins, S.O.C., Bryant Falk, Carl Filoreto, Jon Firestone, Brian Flees, Jacqueline B. Frost, Daniel Gaucher, Fred Ginsburg C.A.S. Ph.D. MBKS, Mark Steven Grove, Leonard Guercio, Steve Holmes, David K. Irving, Larry Jaffee, Michael Karp, S.O.C., Sam Kauffmann, Michael Kent, Mark Kerins, Perry Kroll, Jake Lovell, Adam Matalon, Matthew Marshall, Brian Melton, M. David Mullen, ASC, Stacey Parks, Lew Schatzer, Myrl A. Schreibman, Gregory Singer, Mary Ann Skweres, Glen Tickle, Ira Tiffen, Saro Varjabedian, William F. Vartorella, Ph.D., C.B.C., Kevin Zanit

Media Art Director Lien-Chen Lin

studentfilmmakers.com

Publisher / Editor-in-Chief Kim Edward Welch
Media Art Director Lien-Chen Lin
Web Guru Ruslana Stolbova

Advertising & Sponsorship Opportunities:
Kim E. Welch 212.255.5458
Jody Solis 212.691.0609, Ext. 237

Online/Print Classifieds, Global Marketplace:
http://www.studentfilmmakers.com/contact.shtml

Accounting Department: Gloria Calderon

Contact StudentFilmmakers
http://www.studentfilmmakers.com/contact.shtml
888.222.0652 (US Toll Free)
212.255.5454 (US and International) 212.255.7204 (Fax)

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Clearing the Air with a Filter

Hazy Daze

by Ira Tiffen

Standing on the beach, we look way far away out over the water. Off in the distance we see fishermen, an outcropping of rock, and the far side of Chazy Lake at the horizon. The farther away things are, the more obscured by atmospheric haze, until the far shore is left as just a pale outline no more solid than a ghost.

In the air are, of course, lots of things: many minute particles, water droplets, pollution, and the various breathable gases we know and love. When objects are too far away for our stereoscopic sense of distance to function reliably, we learn to gauge how far things are by both their size and the amount of haze we see them through. We know that the greater the haze, the farther the object.

Figure 1



Figure 2



Much of this haze is the reflected glare of sunlight from the aforementioned water droplets. As with other forms of reflected glare we have been discussing, this has polarized qualities, which allow us to differentially remove them using a polarizer, leaving the un-polarized image-forming light to come through with greater clarity.

Glare reduction with polarizers in these situations is not as effective as it is with windows and water, for instance, when you're at the proper reflectance angle. The solid particles in the air contribute to the haze, and do not reflect much that is polarized. And remember that you still must rotate the polarizer to get the maximum effect.

In these images, with the polarizer (Figure 1) you can more clearly see the rock outcropping on the left as evidenced by its darker density matching that of the water in front. The clouds are more detailed, if still pale, and the mountains in the far distance are more readily discernable from the sky above. Notice that the un-polarized scene (Figure 2), for example, shows the rock as being paler by comparison.

In this age of environmental enlightenment, it's nice to be able to clear the air with just a judicious turn of a filter.

Photos by Ira Tiffen.

In over 30 years of making optical filters, Ira Tiffen created the Pro-Mist, Soft/FX, Ultra Contrast, GlimmerGlass, and others, netting him both a Technical Achievement Award from the Academy of Motion Picture Arts and Sciences and a Prime-Time Emmy Award. Elected a Fellow of the SMPTE in 2002, he is also an Associate member of the ASC, and the author of the filter section of the *American Cinematographer Manual*.



Multi-Cam Shooting: Technical Decisions Critical to Your Production

Time-code Syncing, Creating a Consistent Look, and Using a Good Monitor

by Carl Filoreto

The multiple camera interview is a staple of programs ranging from broadcast network news magazines to bare bones documentaries. And this interview format presents an array of complex production decisions.

The first level of choices concerns the basics: where are the people involved in the interview going to be seated, and where will the two primary cameras be placed? Assuming that these critical decisions have already been made, let's look at the next layer of technical production considerations. They're somewhat unexciting and can be a bit tedious, but these decisions are critical to your production.

The first basic rule of thumb is essential: all the cameras involved in the interview need to be synched by time code. Most multi-camera interviews are arranged so that there's interaction between the person conducting the interview and the interviewees. So when you're in the edit room, you'll be performing a number of match edits. Most editing programs have convenient setups which easily handle multi-camera edits, but only if the cameras are running the same time code. If they're not, then the editor will age noticeably during the process, and no matter how may lattes you provide, their once cheery demeanor will rapidly turn into a continual fit of rage. Keeping the editor happy is very high on my priority list, especially if that editor is me.

Almost all higher-end cameras have BNC connections for generating and receiving time code. In an interesting choice of linguistic terms, one camera is chosen to be the master and will generate time code. The other camera(s) will be daisy-chained together using BNC cables and are considered the slaves. If the cameras are going to be in motion, making cables a hassle, then you can "jam synch" the cameras. This is accomplished by plugging each camera into the master, and acquiring the time code. The slave cameras need to be in a free run time code setting or the operation won't work.



A reliable monitor is vital for multi-camera interviews. This is a 17-inch LCD monitor that's color accurate. Here it's being used during a live shot for NBC News.



Cameraman Paul Thiriot surveys the setup for a recent three-camera Dateline NBC interview. In the photo it seems like a chaotic mess, but the final product looked great.

Each camera has its own personality, so the time codes will drift over time. If you're going to be shooting for a while in this configuration, then you need to occasionally "re-jam" the cameras. Even a few frames of drift will create major headaches during the editing process. Also on the checklist, make sure that all the cameras are either configured for drop frame or non-drop frame. Mismatched settings will create havoc during the edit.

Now, many lower-end DV/HDV/HD cameras don't generate external time code. So what do you do if you're in a situation where you absolutely can't time code synch the cameras? Well, somehow you need to provide some type of timing reference. One solution: have somebody walk into the frame, clap their hands and verbally announce the time code. Not exactly perfect, but at least it provides the editor with a critical time reference. Or, you can rent an electronic slate and have all the cameras focus on it before the interview and before each tape change.

Another extremely important technical factor deals with creating a consistent look. In basic terms, you want all the cameras to look alike. And, I don't mean that they all have grey bodies with silver and black controls. I'm talking about the image that each camera creates. For good or ill, camera looks can be set up in an infinite variety of ways. Ideally, in the pre-production decision process you examined this issue, and you purposefully chose cameras which are the same make and model. Then, when you're on location, you'll only be concerned with matching the subtle nuances of each camera. Hopefully, your cameras can handle scene files, and you can simply upload the same file into each camera. Presto, the cameras instantly match, or at least they'll be reasonably close. Usually, the cameras will differ slightly in the "warmth" of the setup, and in the amount of detail seen in the image. In these cases, you can try to match the looks by playing with



The same 17-inch LCD monitor being used during a corporate shoot where we're producing a series of training videos for an industrial product line.

the internal menus or employing a device called a camera paint box.

I've also resorted to manipulating the white balance of each camera. Today, some cameras will allow you to thumb wheel your way through color temperatures, and select the one that's right for you. That's pretty slick, and it can quickly expedite your camera matching routine. Or, you can do it the old fashioned way, by experimenting with white balance cards. I've got a set of white cards that have gradually increasing shades of blue, which allows me to establish a certain degree of warmth for the camera look. On location, you can play with the cards and with each camera, trying to get the closest match for all the cameras. And, don't try to over-think the situation. Maybe just dropping in a filter of some sort will resolve the issue.

Finally, and this is a rule that can't be compromised, you must have a decent monitor with you on location. Each camera has to be routed into it, and then you can confidently engage in the process of comparing and contrasting each camera. It provides an unwavering reference point in your camera matching process.

Boring? You bet. Sometimes, it can be mind numbing. But I've been in situations where the clock is marching relentlessly forward, and we're frantically running around trying to get disparate cameras to match. It's not a pretty scene. Sure, you can resolve some of these issues during the post process, but your mission in the field is to make the editing process as seamless as possible. And remember, you're trying to create and maintain an aura of believability in your production. If you're shooting a scene with two cameras that have two different looks, well, the viewer will probably pick up on that, even if it's at a subconscious level. A little vigilance in the field can prevent a lot of post production headaches. And it'll help you minimize your latte bill.



The location and appearance of the video out, time code in and time code out connectors of a full format camera. These connections are usually found on the side of the camera away from the operator, on the opposite side of the viewfinder.

Photos by Carl Filoreto.

Carl Filoreto is an award-winning DP, and his company is Elk Run Productions, Inc. (www.elkruntv.com), which has a roster of clients that spans corporations, production houses, crewing agencies, and broadcast and cable networks, including Dateline NBC, The Food Network, and The Travel Channel. Prior to starting his business, Carl won seven regional Emmy awards, numerous national and regional National Press Photographers awards, and multiple awards from Colorado Ski Country and the National Snowsports Journalists Association, while working at KMGH-TV in Denver, WTNH in New Haven, and WGGB in Springfield, Massachusetts.


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