

Section Meetings

Hollywood February 2006

The February meeting of the Hollywood Section was the fifth year of an annual evening of archival theatrical short subjects. This year's program concentrated on films preserved by the UCLA Film Archive and the Warner Bros. preservation department.

A pre-show reception, hosted by FotoKem, was held in the lobby of this historic theater, which first opened in 1928 as the flagship of the Warner Bros. (WB) theater circuit. The venue no longer operates commercially, but is run by major studios as a facility for experimentation with digital cinema. The main floor, which has about 1,000 seats, has been kept in excellent condition. The screen size is proportional to the auditorium, about 30 ft high, so the image is quite impressive. Film is run on a Kineton projector.

The program opened with the 1947 George Pal Puppetoon *Rhapsody in Wood*. It then went back to early sound with a 1928 short from MGM, *Bernardo De Pace—Wizard of the Mandolin*. This was followed by Norman Thomas Quintette *Harlem-Mania* (WB 1929); *A Minute from Deat* (WB 1939); *Hollywood, City of Celluloid* (UCLA restoration 1932, with a shot down Hollywood Boulevard showing the theater where the meeting was being held); *Hollywood Rhythm* (Paramount 1935); *Shoestring Follies* (WB 1935); and ended with the grand finale, a new CinemaScope and stereo sound print of *Overture to the Merry Wives of Windsor* (MGM 1953, winner of the Academy Award for one-reel short).

Dick May commented on each short between reels.

—Richard May, Past Chair

Hong Kong January 2006

On January 20, the Section organized an interactive television (ITV) seminar titled: "Interactive TV—A World Perspective". The event, held in Hong Kong was co-organized by IVE Shatin, Hong Kong Institute of Vocational Education, and supported by Unisoft Corp. from the U.S. Audrey Ruelas, director, and Guy Hadland, chief technology officer from Unisoft shared their experience of on interactive TV by giving a brief description of a number of iTV applications, that are currently deployed worldwide.

A brief summary of the current iTV middleware standards was also presented, including some details on DVB's Multimedia Home Platform (MHP), the U.S. cable industry's OpenCable Application Profile (OCAP) and a new standard Enhanced TV (ETV), which was recently introduced in the U.S. to support legacy set-top-boxes. In addition, the

Mark Your Calendars

SMPTE New York Editing Showcase

Tuesday, June 6, 2006
Borough of Manhattan Community College

Exhibits 11:00 a.m. - 8:00 p.m.
Program 12 noon - 8:00 p.m.

Back by popular demand, it's the SMPTE New York Section's Editing Showcase and Exhibition! Come join your colleagues in a concentrated segment of post-editing, professionals, users and user groups, and buyers. Geared to everyone: CEOs and business owners, vice-presidents, directors of engineering, consultants, editors, product managers, and sales managers. If you work in editing and post-production, this event is not to be missed! Registration is free.

Check out the SMPTE Conference page at www.smpte.org, for more information!

Sponsored in part by the Borough of Manhattan Community College.

requirements for encoding and transmission of MHP and OCAP applications in a cable or satellite station were discussed.

The presentation concluded with a simulated demonstration of a TSBroadcaster product to illustrate some of the principles and concepts presented in the seminar in which TSBroadcaster was the encoder and streamer, supporting MHP, OCAP, and ETV applications.

The seminar was conducted in IVE Shatin's lecture theater with about 50 television broadcasters, system integrators, end users, lecturers, and representatives of production and post-production houses in attendance.

—Tony Ngai, Section Chair



(L-R) Guy Hadland, Audrey Ruelas, KL Lam (Governor, Asia Pacific) and Tony Ngai (Chairman, HK Section).

Ohio February 2006

The meeting on February 9 was held at the WOSU-TV/AM/FM studio plants located at the Fawcett Center, on the Ohio State University's main campus, in Columbus. This was a combined meeting along with Ohio local chapter 52 of the Society of Broadcast Engineers.

The two guest speakers for the evening were Tom Lahr, chief engineer of WOSU-TV-DT, a PBS affiliate for the Columbus market, and Gary Liebisch, from the Broadcast Communications Division of the Harris Corporation. Lahr's presentation consisted of an overview, complete with several artists' conceptual sketches/drawings, etc., of their new digital TV studios plant layouts. They will move into these facilities later this year at C.O.S.I. Columbus. The new plant will include local HD, studio pedestal cameras, and associated lighting and stage equipment. For most digital type programming, they currently use the PBS network's multicasting and HDTV signals, but after the move is complete, the station will also be able to produce and broadcast locally-originated HD programming. These facilities, will be one of the best equipped in the country, for locally-originated HD studio programming.

Liebisch's presentation focused on the Harris Broadcast Communication's division's new product line of nonlinear amplifiers needed for the linearization of HD radio transmitters. This product line involves a new array of precorrection signal capabilities available to a broadcaster before transmission. During his presentation, Liebisch pointed out that several of the features/techniques offered with some of their new HD radio product lines for pre-transmission, are also applicable and available to a digital TV broadcaster.

—Gene L. Batey, Secretary/Treasurer

Rochester February 2006

The Technicolor Notebooks held at George Eastman House International Museum of Photography and Cinematography in Rochester, NY, constitute a remarkable collection of more than 50 items: notebooks of memos, invention disclosures and technical reports, laboratory notes and professional diaries including those of one of Technicolor's most eminent scientists, Leonard T. Troland. Most of these date from about 1915 to 1935, reflecting the history, development, and technology of the early Technicolor color film processes. Ulrich Ruedel, a post-graduate student in the L. Jeffrey Selznick School of Film Preservation at George Eastman House, reported on the first exploration of this collection, a detailed analysis of three selected notebooks describing the development of the two processes known as "two strip" and "Glorious" Technicolor.

The technologies described were: (a) cameras/beam-splitters, including sketches of proposed optical beam-splitter assemblies; (b) the matrix film stock which was exposed



Chuck Howell, Curator of the Library of American Broadcasting (l) with James Snyder, speakers at the Washington, D.C., Section meeting.

optically through the base and then converted into a relief image by selective hardening of the image areas; (c) the dye transfer process from the inked matrix to the receiver film, which carried a silver sound track image. Ruedel described the records of a number of early proposed systems that did not lead to commercialization. He showed trial film samples with test images, including some that are believed to be early shots of the actress Anna May Wong. These allowed the SMPTE audience to experience rare visual glimpses into the past of Technicolor.

—Alan J. Masson, Section Manager

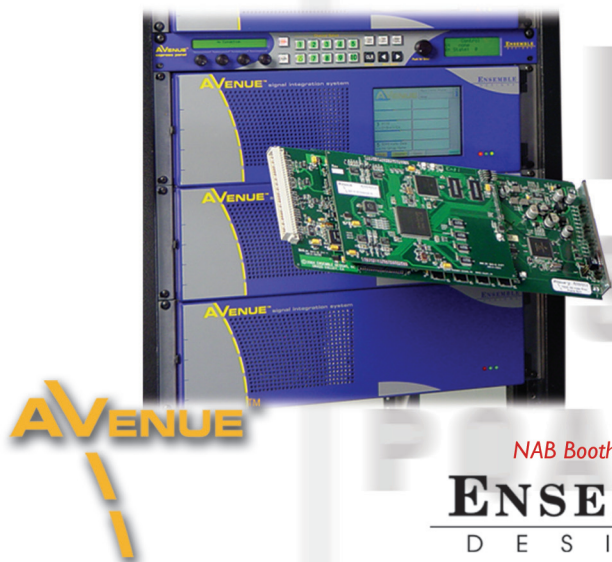
Washington, D.C. January 2006

The Section meeting on January 19 was held at the Library of American Broadcasting at the University of Maryland in College Park. About 35 SMPTE members and guests heard a fascinating presentation by Chuck Howell, curator of the library, and James Snyder of Verizon Digital Media Technologies Group, who is technical advisor to the library for video and audio technologies and also Secretary of the SMPTE Washington, D.C., Section.

Howell noted that radio and television have been an integral part of American life for more than 60 years, but only a small portion of all the programming ever produced still exists. The Library of American Broadcasting (the former Broadcast Pioneers Library) and its partner, the National Public Broadcasting Archives works to preserve the living records of the broadcasting industry and public broadcasting. The collection includes some 7,000 audiotapes, 9,000 recorded disks, and a growing collection of film and video material in a variety of formats. It also includes over 5,000 scripts, 225,000 photographs, and numerous different artifacts.

James Snyder described some of the challenges of preserving audio and video media while also making it accessible for playback by researchers and the public. He

You're focused on signal processing and infrastructure.



So are we. That's all we do.

Whether upgrading your broadcast facility to digital, or converting to HD, Avenue will take you there.

- **HD up/down/cross conversion**
- **HD/SD Dual rate modules**
- **New optical I/O**
- **Best control system plus SNMP**

NAB Booth SU 2997

ENSEMBLE

D E S I G N S

Tel +1 530.478.1830 ▲ Fax +1 530.478.1832
www.ensembledesigns.com ▲ info@ensembledesigns.com
PO Box 993 Grass Valley CA 95945 USA

described the efforts to restore and maintain obsolete format machines for playback of old material, and the progress in transferring programming to newer formats that can be copied for distribution as required.

Attendees were particularly interested in the tour of the legacy video machine areas, with a hands-on presentations of some of the equipment and historical program materials. Some attendees reminisced about their own experiences with 2 in. and 1 in. videotape machines and other long-gone equipment, with discussions going on late into the evening.

Many thanks to Chuck Howell and the library staff for their hospitality and for excellent refreshments.

—Graham Jones, Section Manager/Program Chair

Washington, D.C. February 2006

The Section meeting on February 16 saw the largest attendance in many years. Over 120 members and guests, some traveling considerable distances, visited the new Discovery Television and Technology Center in Sterling, VA. This facility, which opened in August 2005, provides the main origination center for Discovery's 18 North American standard-definition and high-definition channels, including Discovery, The Learning Channel, Travel Channel, Animal Planet, and Discovery HD Theater.

John Honeycutt, executive vice-president, media technolo-

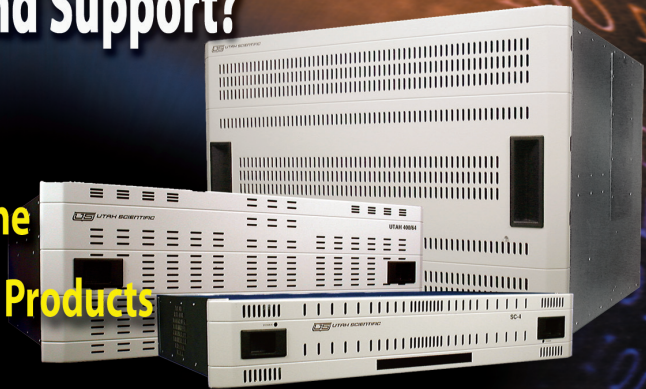
gy and operations at Discovery, and Jonathan Perkes, vice-president of engineering, gave presentations describing the technical infrastructure and systems and some of the concepts and work that went into their design and implementation. The 53,000 sq. ft building houses ten multichannel master control rooms, a live control room, ingest, and archiving. Following ingest of program material, all program storage and distribution is tapeless with a state-of-the-art system architecture. The facility relies heavily on IT networks and systems, with 16 VLANs, 66 core and master control servers, two ingest servers, two SD and two HD



John Honeycutt, Discovery Communications, with some of the 120 attendees at the February Washington, D.C., Section meeting.

Why Pay Extra for Service and Support?

- ◆ Ten-Year Warranty
- ◆ 24 Hour Service / Support Line
- ◆ Full Support of All Legacy Products



Utah Scientific gives you all three at no charge.

When you are choosing a routing or master control system, remember to consider the cost of support.

Only Utah offers these first-class support services to all customers at no additional charge.

US UTAH SCIENTIFIC
New Directions in Digital Switching
www.utahscientific.com

playout servers with more than 25 Tbytes of storage, and a StorageTek data archive system. All critical systems are backed up with redundancy, providing extremely high levels of system availability. An interesting feature is the three-hour delay server built-in to all on-air channels, with seamless changeover to a live playout server. This provides a considerable buffer when needed for late schedule changes, troubleshooting, and maintenance in the air chain.

Following the presentations, attendees had the opportunity to tour the facilities and discuss further issues about the system design and operations with John, Jonathan, and Don Johnson. Particularly impressive, and an indication of current system architectures, was the small number of staff required for such a large number of on-air channels while maintaining the highest levels of on-air quality and service availability.

Many thanks to Discovery for their hospitality and to Evertz, Miranda, Omneon, and Omnibus, for sponsoring the excellent refreshments. It was also evident that advanced equipment and systems provided by these companies contributed significantly to the success of the new technical Discovery facilities.

—Graham Jones, Section Manager/Program Chair

New England February 2006

“Moving the Moving Image”

When I got home from Thursday evening’s SMPTE-NE meeting, my wife casually asked, “How did the SMPTE

meeting go tonight, dear?”

I doubt that she was prepared for my answer.

“Oh, just the usual stuff,” I said, trying to maintain my best straight face. “Let’s see, there was this big helicopter they use for aerial cinematography. It landed right next to us. We wheeled it into the meeting, they showed us how they do it, then we all pushed it back out into the parking lot and it took off.” I stifled my best simulated yawn and went on...

“The guy who does the shooting, Brian Heller, showed us clips from his TV and motion picture work, really top-shelf stuff. Have you ever seen the opening to the David Letterman show, the Channel 56 Ten O’clock News, or ‘Providence?’”

“That’s his work?”

“Yup.”

“Wow, sounds like you had quite a meeting.” She said, showing a bit more interest than usual. “I always wondered how they get those shots.”

“Well, there’s much more to it than you might think. It takes a special combination of flying skill, cinematography know how...and a boat load of guts.”

“I’ll bet,” she said.

“Yeah, and that’s not all. We had an excellent Glidecam demonstration by John Correia, one of the few union Steadicam/Glidecam operators based here in New England. He showed us how the rig works, what it takes to get the shots, as well as some examples of his TV, film, and commercial work. I never realized just how much training, physical prowess, and determination it took to become really good.”

“Sounds interesting. Tell me more,” she asked, obviously

becoming more intrigued.

Still charged with enthusiasm from what I had just seen, I was more than glad to oblige.

"Well, Correira showed us how important it is to balance the camera on the rig. You've got to balance the camera just right. He told us when everything is set up perfectly it takes only four fingers to operate and manipulate the camera. In fact, the fewer fingers on the camera, the better!"

"He has this cart that all Steadicam operators use that has both a balancing rig and a place to hang the thing when it isn't attached to his body via its vest. He pointed out that the further away the camera is from his body, the heavier it is. A few feet away and it feels like twice the weight! By necessity, Correira, like most Steadicam operators, is a rather rugged, sturdy young fellow."

"Sounds like a tough way to make a living," My wife comments.

"You don't say. He says he sees his chiropractor once a week, and that it should really be twice. Any Steadicam operator that says it doesn't hurt isn't telling the truth, Correira insists."

"How does the thing work...with gyros?"

"You mean those little Greek sandwiches?"

"Very funny." She doesn't seem to appreciate my admitted-ly weak attempt at humor.

"No, no gyros. Garrett Brown, the Oscar and Emmy Award-winning inventor who conceived the idea back in the 70s, came up with another way to isolate the camera from the shake, rattle, and roll of the outside world. Gyros would've been much too heavy."

"Ha, next thing you're going to tell me is they do it with mirrors," my wife says tauntingly.

"Nope, it's all done with a double-jointed articulated arm that's attached to a vest that the operator wears," I explain.

"The arm has springs and pulleys that work together to absorb shock. That's how they can run up a flight of stairs and still get a very smooth shot. At the other end of the arm is a long pole with the camera mounted at one end and a monitor and batteries at the other. The batteries and the monitor help to counterbalance the camera at the other end.



John Correira demonstrates the Steadicam/Glidecam at the New England Section meeting.

Real-time Broadcast Video over IP

Encoders, Decoders, and Servers

- High Quality Video Compression
- Point-to-Point and Point-to-Multipoint Video Distribution
- Live News Gathering
- 24/7 Transmission at Low Cost and Low Latency
- Integrated Solutions
- Advanced Forward Error Correction

Visit us at:

The National Show, Booth #2413
NAB 2006, Booth #SL581

Contact us to learn more
www.streambox.com
sales@streambox.com
206.956.0544 Ext. 222



Streambox

In the middle of the arm there is a gimbal with a protruding handle. The handle is where the rig attaches to the arm. Are you beginning to get the picture?"

"Well, sort of," she says, "Sounds like an awful lot of physics."

"No doubt about it. The science involved gets pretty dense; stuff like spreading out the center of mass," I say authoritatively, speaking as if I know what it all means. "Correira spoke more about the practical aspects of actually using the devices than he did about the science. He showed us how the camera can be mounted high or close to the ground, and how the two major operating positions, the 'missionary,' and the 'Don Juan' work."

"Are you pulling my leg again?" my wife says, stifling a big guffaw.

"No, I'm being totally serious. In Steadicam parlance the 'missionary' is any operating position where the camera lens points forward. In the 'Don Juan', the camera lens points backwards, so the operator can shoot what's directly behind him, yet see where he's going."

My wife interrupts to ask me to tell her a little more about the aerial cinematography presentation.

"It was something I knew almost nothing about," I admit.

Brian Heller and his longtime pilot Mike Peavey obviously love their work and are more than willing to share what they have learned about their craft. Heller is an avuncular fellow, who with his handsome white beard could pass for Santa



Attendees at the New England Section meeting.



Brian Heller (l) and pilot Mike Peavey demonstrate helicopter used for aerial cinematography.

Claus were he to gain some weight. His somewhat short stature is a definite asset in the tight confines of the Bell Jet Ranger III chopper. Cohort Mike Peavey is the picture perfect fly boy, well into middle age, but forever young.

"You should have seen this chopper," I tell my wife. "It is highly compact, but absolutely loaded with equipment. The aircraft itself only weighs some 2000 lbs. Where the rear seat would go, is a Tyler Gyro Stabilized camera mount fitted with an ARRI 35mm camera. It's Heller's weapon of choice. Although it can only shoot for four (or ten minutes with the largest magazine), the results are worth the frequent reloads. We saw some 'one-light' prints transferred to Beta SP and they looked incredible. Of course, you can transfer them to standard or high-def...anything you please."

When using the side-mounted camera, Heller sits with both feet hanging outside of the fuselage, resting them on a skid. He is firmly strapped into a seat and a windscreen protruding from fuselage protects him from the direct blast of the wind. Usual shooting speeds are 60 to 80 mph. The triple gyro in the Tyler mount enables very smooth moves.

Several of us tried it (on the ground, of course) and appreciated its solid feel.

But the camera and the mount are only half the story.

The other half is the special brand of airmanship that's required of the film pilot. It's a real team effort. Heller and Peavey have been practicing their pas de deux for some 30 years now! Whenever Hollywood directors come to New England and need an aerial DP, they know who to call.

We also got a look at the Tyler stabilized front mount with a high-end Panasonic DVCPRO camera sitting exposed to the open air.

My wife asked what they do if it rains.

"I asked Heller that. He says they never fly in the rain. They need good weather to shoot."

Heller also explained the differences between Tyler mounts and those offered by Wescam. "The Wescam provides a super stable platform for telephoto work for news and other applications where you want it to appear as if you are shooting from a rock-solid base instead of from a moving aircraft. It all depends on the application. We sometimes shoot with Wescam."

Heller says he usually shoots with ISO 50 negative stock for daylight shoots and ISO 500 stock for "magic hour" or evening shoots. Typically, normal (180°) shutter angle and 24 frame/sec film speeds are used.

During the helicopter tour, Peavey commented on some of the aircraft's features. Fuel consumption is 25 gallons/hour, and the kerosene fuel for its single turbine can cost over \$5.00 per gallon! He paid \$5.90 recently in Connecticut!

Another interesting aside, is that in a post 9/11 world, just about every law enforcement authority, government agency, and building manager must be called or otherwise notified before a scheduled shoot. Some folks take a pretty dim view of a chopper buzzing past their office window unless they have a pretty good idea of what they are doing there.

Peavey says the difference between letting a local law enforcement authority know what you are up to in advance or not letting them know, is that when you land to change film magazines or to get re-fueled, the police cruiser that's usually waiting for you when you touch-down is either there to interrogate you or to watch your chopper while they drop you off at the nearest donut shop for a cup of coffee.

"So what does it cost to rent a chopper and all this gear for a typical shoot?" my wife queries.

"They tell me you better plan for a minimum of about \$5,000 just to get started. Of course, everything is priced a la carte, but that can be very misleading unless you know all of the ins and outs of this very arcane business."

Special thanks to John Gates for the co-production of this meeting.

—Martin P. Feldman, Section Manager