

# THE COFFEY FILES

GOVERNMENT | LAW ENFORCEMENT | MUSIC | TRANSPORTATION | INDUSTRIAL | INTERNET | PODCAST | EVENTS | CHURCH

**BEHIND THE SCENES:  
ON SET WITH  
STEVE MORROW**



**ALSO IN THIS ISSUE:**



**Oscar Night**  
With the Weingartens



**My Best & Worst Day in Audio**  
By John Coffey



**What I Learned in Reality TV**  
By Richard Ragon



**And What...Give Up Show Business?**  
By Tim Cooney

***The Educational Edition Special***

OPEN LETTER TO DIRECTORS FROM PRODUCTION AND POST  
THE ART OF BOOMING

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**The Coffey Files**  
**2009**  
**Volume 21, Issue 3**

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**Publishing:**  
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## THE COFFEY FILES

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This issue is going to be much different from our others. I'm also going to shorten my usual column because I wrote two very personal articles for this issue instead. In the first article, I'll come clean and tell you about my worst professional screw-up job, ever. It was the Tyson v. Bruno Heavyweight

Championship Fight. Everything that could possibly go wrong, did. I made so many mistakes in one day that that I still have nightmares about it. Whatever you've done wrong on a job, you'll feel much better after reading this. It would have been better if Tyson had knocked me out.

The next article is just the opposite. It's about my personal favorite show I ever mixed. It was the ultimate dream job of all time. The title, Super Models of the Rainforest, says it all.

Then we come to what has become known as THE LETTER. This tutorial is a constant work in progress. I first wrote it several years ago. It started out as a rather angry indictment about the treatment of sound persons in our industry and has since evolved into a softer gentler learning tool, after I opened it up to feedback. The late Stu Fox particularly helped the most. It has now evolved into a teaching tool and I have given permission to scores of film schools and publications all over the

world to re-print it for free, to anyone who wants to use it for good instead of evil. So, I recently took another pass at updating it and I am re-releasing it again in this issue. We now put it in a form that you may want to keep handy - to show to your producer, director, UPM and crew... just to reinforce my point that most set problems are constantly re-occurring, and therefore fixable. It puts blame where it belongs and off your shoulders. To complement that article, we also are printing a similar letter written by our brothers in post.

We have a fun issue here. Tim Cooney gave us a fascinating tale of his former life as an elephant trainer and then on to sound mixer. (Now that's a good training ground for handling rambunctious directors, actors...and even grips). Richard Ragon tells us about his current show. Forrest Williams let us use an old story from when he was a boom operator over twenty years ago. It shows that the basic principles of booming still apply today. Mark Weingarten let us print his interesting tale of his special night and Steve Morrow has a wonderful cover article on his experiences on his last feature, Fame. Sad but warming to honor two really nice actors who died as we introduce two children to this world.

Hope you enjoy this different kind of issue,

*John Coffey*

## SNIPPETS



**Farrah Fawcett**  
**02/02/47 - 06/25/09**  
**R.I.P.**

*Farrah, It was a pleasure to have known and worked with you. You were a truly beautiful person inside and out..*

*-John Coffey*



**Congratulations to the Pierce Family!**

*Andre Kiichi Pierce  
born Sep 1, 2009 1:26 pm  
7 pounds, 14 ounces*



**A New Addition to the Morantz Family!**

*Sydney Laurel Morantz  
born Sep 14, 2009 2:42 AM  
6 pounds, 8 ounces*



**Patrick Swayze**  
**08/18/52 - 09/14/09**  
**R.I.P.**

*I worked with Patrick Swayze for 6 months on "The North and The South." He knew everybody's name on the crew. He was also a man's man and we all adored him. We're gonna miss you "Buddy."*

*-John Coffey*



**H.I.G. Capital**, a leading Miami-based private equity firm, announced the acquisition of Hula Post Production, Inc., a premier bi-coastal provider of mobile equipment rentals and related services to the film and television industry. From its offices in Los Angeles and New York, Hula serves a diverse customer base with customized workflow solutions supported by leading edge technology. Hula is the latest addition to the Telecorps Holdings family of companies, which also includes Wexler Video, Coffey Sound, PostWorks and Orbit Digital.

"Hula extends our leadership in several key market segments and furthers our ability to deliver a comprehensive, end-to-end solution for our customers. Together with PostWorks

and Orbit Digital, who we acquired in May of this year, we have assembled the capabilities to serve content creators through every aspect of the production and post-production process," said Elliot Maluth, Managing Director of H.I.G. Capital's San Francisco office.

Denine Nio, CEO of Hula, added, "By focusing first on our customers, we have quickly become a leader in non-linear, VTR and media storage rentals. We are excited to partner with Telecorps, and intend to leverage their substantial resources to offer a broader range of equipment and services, while maintaining the uncompromising customer service that has fueled our growth to date."

Denine Nio became an owner of Hula in 2002 when the company was a small, Los Angeles based start-up. In the seven years since, the company has grown at an average rate of nearly 70% per year and established itself as one of the most respected brands in the industry. Hula expanded beyond Los Angeles into New York in 2004 and now serves customers across the United States.

Chris Thompson, CEO of Telecorps, observed, "We have always had a great respect for what Denine and her team have created. Hula has an excellent reputation and an impressive roster of successful and satisfied customers. I am thrilled to have Hula join the Telecorps family as we continue to build a national, industry-leading film and television services provider."

#### About Hula Post Production:

Hula is a premier post-production services provider that has built its brand by delivering exceptional customer service. Headquartered in Los Angeles with a satellite office in New York, Hula offers a state of the art fleet of editing systems, decks, and related post-production equipment to a diverse customer base across the country. For more information, please contact Robert Nio at +1-818-470-8655.

## Congratulations to the 2009 Emmy Award Winners for Sound!

### *Proof Again That Hard Work Brings Luck*

#### Outstanding Sound Editing for a Series

##### *Battlestar Galactica - Daybreak (Part 2)*

Daniel Colman, Supervising Sound Editor / Sound Designer; Jack Levy, Supervising Sound Editor; Vince Balunas, Dialogue/ADR Editor; Sam Lewis, Sound Effects Editor; Doug Maddik, Foley Artist; Rick Partlow, Foley Artist; Doug Madick, Foley Artist; Michael Baber, Music Editor

#### Outstanding Sound Editing for Nonfiction Programming (Single or Multicamera)

##### *102 Minutes That Changed America*

Seth Skundrick, Sound Designer

#### Outstanding Sound Mixing for a Comedy or Drama Series (Half Hour) & Animation

##### *Entourage - Pie*

Tom Stasinis, Production Mixer; Dennis Kirk, Re-Recording Mixer; Bill Jackson, Re-Recording Mixer

#### Outstanding Sound Mixing for a Comedy or Drama Series (Half Hour) And Animation

##### *Weeds - Three Coolers Showtime*

Jon Ailetcher, C.A.S., Sound Mixer; Fred Tator, C.A.S., Re-Recording Mixer; Chris Philp, C.A.S., Re-Recording Mixer

#### Outstanding Sound Mixing for a Comedy or Drama Series (One Hour)

##### *House - House Divided*

Von Varga, Production Sound Mixer; Richard Weingart, Re-Recording Mixer; Gerry Lentz, Re-Recording Mixer

#### Outstanding Sound Mixing for a Miniseries or Movie

##### *Generation Kill - The Cradle Of Civilization*

Colin Nicolson, Production Mixer; Paul Hamblin, Re-Recording Mixer; Martin Jensen, Re-Recording Mixer

#### Outstanding Mixing for a Variety or Music Series or Special

##### *81st Annual Academy Awards*

Ed Greene, Audio Director; Dan Wallin, Orchestra Mixer; Robert Douglass, Audience Sweetener; Patrick Baltzell, House P.A. Mixer; Pablo Munguia, Music Playback Mixer; Mike Parker, Monitor Mixer; Brian Riordan, Pre-Production Packages Mixer; Adrian Ordenez, Pre-Production Packages Mixer; Conner Moore, Pre-Production Packages Mixer; Mark Edmondson, Pre-Production Packages Mixer

#### Outstanding Mixing for a Variety or Music Series or Special

##### *The 51st Annual Grammy Awards CBS*

Tom Holmes, Audio Mixer; Eric Johnston, Audio Mixer; Mikael Stewart, PAMixer; Ron Reaves, PA Mixer; John Harris, Music Mixer; Eric Schilling, Music Mixer; Michael Parker, Monitor Mixer; Tom Pesa, Monitor Mixer; Bob LaMasney, Audience Sweetener; Paul Sandweiss, Re-Recording Mixer

#### Outstanding Sound Mixing for Non-Fiction Programming

##### *102 Minutes That Changed America HISTORY*

Damon Trotta, Re-Recording Mixer



Von Varga & Juan Cisneros for "House"



Ed Greene for "Academy Awards"



Tom Stasinis for "Entourage"



Jon Ailetcher for "Weeds"

# Batteries not included.\*



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## IT'S A 16-TRACK RECORDER...

With simultaneous recording on 8 tracks, the R16 is perfect for recording everything: from music production and rehearsals to field recording and live performances. Use the R16's on-board studio, mastering and guitar effects to sweeten your tracks.

## IT'S A USB INTERFACE.

Connect the R16 to your computer via USB, launch your favorite DAW and start recording tracks using its 8x2 audio interface. We've even included Cubase LE to get you started.

## IT'S A CONTROL SURFACE.

When you're ready to mix on your computer, the R16 is right there with you. With your DAW software and the R16's intuitive controls, mixing has never been easier.

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Did we mention the R16 will operate on 6 AA batteries? You can also use the included power supply, or USB power when connected to your computer.

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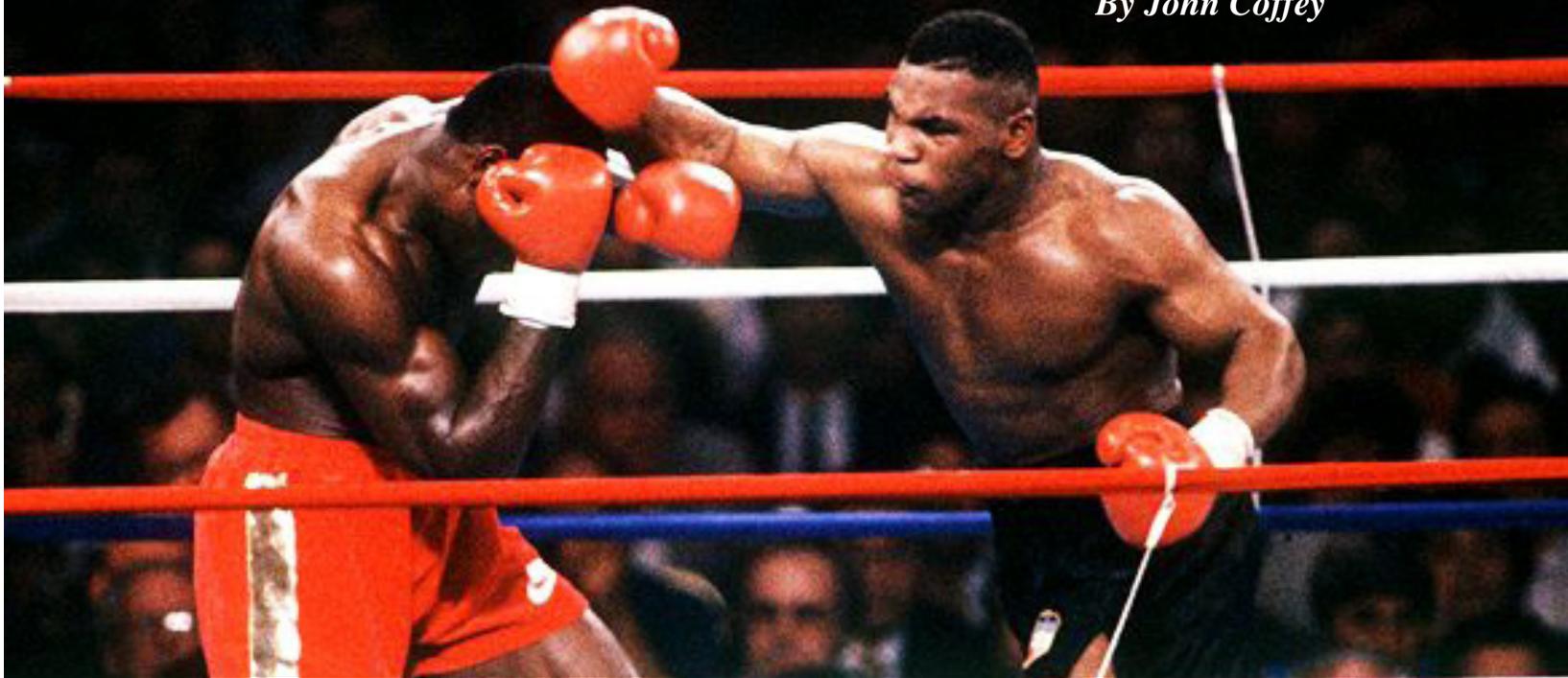
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\*Hey, we give you a 1GB SD card, AC adapter, USB cable and Cubase LE... Give us a break on the batteries.

# zoom

# My *Worst* Day in Audio

By John Coffey



There were some pretty tough days over the years. Like when we filmed next to Niagara Falls in the winter and a whole civil war mini-series shot in the humidity of the scorching summer southern sun, standing in fields full of biting chiggers. However, they are not even in the running here. My worst day by far was a simple over-the-shoulder job taped in 1996 for an MTV show called “Sports with Dan Cortese.” Since I’ve retired from mixing and have no reputation to worry about anymore, I can tell this story. All the blame actually goes to my good friend Stacey Hill, who regularly mixed the show. On this episode, he was going to mix the Mike Tyson vs Frank Bruno Heavyweight Championship Fight to be held at the MGM Grand Hotel in Las Vegas. Stacey would do the fight and all of the behind-the-



*Another K.O. for the People’s Champ in 1977*

scenes interviews leading up to and after the fight. He even would be in Tyson’s locker room and the red carpet after-party, the whole shebang.

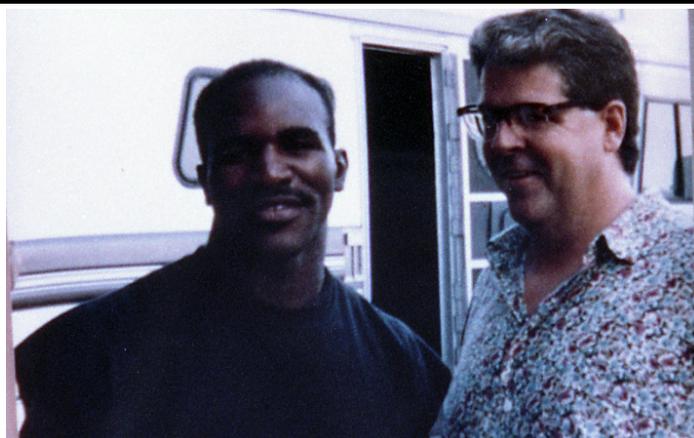
Well I’m a huge fight fan. I have met Ali, Duran, Bowe, Hollyfield and many others. To me, boxers are by far the biggest celebrities I could ever know. However, I had never seen a heavyweight championship fight in person. This was back when it was still an extravagant event. Originally, it sounded like a carte blanche pass to see a Tyson fight in person and Stacey was actually going to be paid to attend. How wonderful. What a lucky guy. When I told Stacey how jealous I was, he laughed and said it would be hard work. Of course I called him crazy. I actually used the word “fun”. I had never done one, but how hard could an over-the-shoulder job be? (This was before the term reality show existed.) I just thought of those guys as mixers who showed up on my sets to interview the star and left after an hour. Little did I know. The next thing, Stacey’s calling the MTV producer and handing his whole job over to me. I hugged Stacey for his kindness and was soon on a plane to Vegas. This was going to be so much “fun”....

I was told to travel light, which was an oxymoron because this was the days of the Nagra, but still how bad could carrying a little bag be? I was also told to record Cortese and an actor named Jonathan Silverman on one track, and all the interview subjects on the other track. So it would be a stereo job. Still a piece of cake, right? Not having done very much over-the-shoulder before, I couldn’t pick out what to leave or take from my cart, so I brought

maybe a little too much gear with me. No way was I going to be caught holding them up. I lugged up several of my heavy Anvil cases to be safe. The next morning, the producer pulled up our van to load our two camera people, a PA (who I later found out was a camera wannabe who clearly was not going to help me out), me and our gear. Luckily, camera didn't have much gear because mine filled up most of the space in the van. As we pulled into the parking lot of the MGM Grand Hotel, I wondered how they could be so unprepared. Then they quickly grabbed their camera gear and immediately started walking to the lobby, without waiting for me.

The producer seemed a little surprised that I needed to set up my gear first. He made little huffing noises and his eyes rudely bored holes into me as I took out my Nagra and loaded it with tape. The obnoxious guy kept tapping his foot as I then put everything in my cool new Portabrace case that I couldn't wait to try out. I hooked up my new Sonosax 4 channel mixer, put two wireless mics in the bag and I was styling....after about 15 minutes of plugging stuff in, I told him we could go now. One thing I noticed right away is that they all walked really fast, but my gear was a little cumbersome and slowing me down. By the time I caught up to them in the lobby, the strap from the bag was already beginning to cut into my shoulder, when it wasn't slipping off completely as I walked. I found myself walking at an angle to keep it on. I made a mental note to look into those front hanging harnesses when I got home. Oh well, it's only going to be for one day, it can't be that bad.

So when they started rolling some establishing shots, the camera swung over to look at me. I didn't have a clue why. So they cut and asked me where my bloop light was. Well I heard of them, but never thought about bringing one. They should have asked me ahead of time. They decided to clap their hands instead. Anyway, how could a sound guy deal with that too, with all this stuff hanging off me already? On my usual shows, it's the camera assistant's job, not mine. After the 10th interview with the various tourists in the lobby, we headed towards the Vegas Strip sidewalk in front of the hotel and began interviewing the random tourists strolling by. It was a really long walk through an enormous casino floor and my already bad back was starting to ache. After recording awhile outside, I noticed that the tape had rolled out on the Nagra. I'm not sure which interview that happened on. In fact, I never re-call going through tape that fast on any of the production tv shows that I usually did. They had another tourist ready in front of the camera when I asked them to hold off on their shooting until I re-loaded. The problem was that all my rolls of tape were way, way back at the van. I don't think they appreciated how fast I jogged back to the parking lot and back again. About then, I realized I wore the wrong shoes because I wanted to look good for the big event.



*John eyeing Holyfield's ear in 1990.*

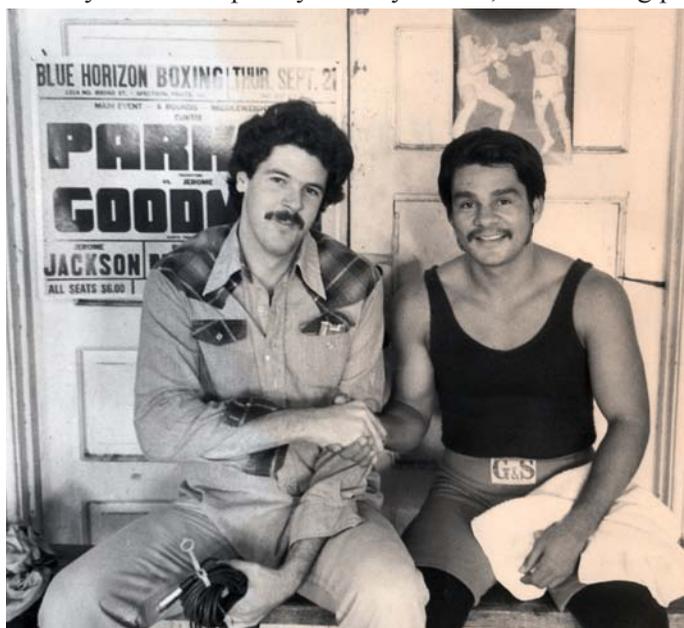
Mental note, wear tennis shoes next time. Since there was no third person for me, I gave the used tape and 2 spare tape rolls to the producer to hold. He said he had never done that before, but I told him I sure didn't have any room for it, duhhh. I made another mental note to ask Stacey who holds all his tape.

We walked back to the lobby again and up some elevators to a do some more interviews in rooms with various people associated with the fight. On my forth re-load in 90 minutes, I realized that I might need yet more tape than the three I had brought back to last the day. Some time in the Don King interview, the forth roll finished. I'm not exactly sure when it rolled out because the Nagra keeps acting like it's recording, with or without tape going across the heads. Oh well, I think I got most of it and King had said plenty already. I discovered it's a lot harder to see how much tape is left when I'm not sitting on a cart, looking down at the reels going around. I made a mental note to check that more often. Anyway, I told the producer to hold the filming until I got more rolls. I looked around for the PA, but as usual, he was never there when I needed him because he was always busy doing something for the camera guys or the producer. It was clear now that I was on my own here. Mental note, ask for a sound PA next time. They didn't seem to understand why I had to leave again, so this time, at the van, I decided to bring one entire Anvil case loaded up with 15 rolls of tape, some batteries and other stuff I guessed I might need. There will be no more waiting on me. As I ran back, with the heavy case, I made a mental note to bring a Pelican case next time. The producer, seeing the case, handed me back my tape rolls. I stuck them inside, planning to label them later when we had a break. Neither thing ever happened.

The producer then said for us to follow him to the arena to meet with our talent, who will now take over doing the co-interviewing. Everyone helped the camera people carry their gear, but no one helped me as I carried my stuff across the lobby and for the whole long walk to the arena. That MGM Hotel is sure a huge place. I thought my arm

was going to fall off and my shoulder was already numb from the Nagra strap. I felt true despair setting in. When I reached the top of the arena, I left the case there and walked down to the ringside, where they were of course, all ready to shoot with our talent and waiting for me. The producer exasperatedly told me to put wires on the Cortese and Silverman. (I don't know what his problem was, but he's way too tense for this job.) I wired them and my Travelers VHF frequencies in the 168-172 mhz range, that we all used, worked great. In those days we all had the same four frequencies, which was fine because mixers were always far enough away from each other to never step on each other's frequencies.....except today. I would use the only two wires I brought on our two interviewers and the boom on the people they interview. That was fine until they started shooting wide shots. Then the cameraman asked why my pole was in the shot, I explained that I only had two wires with me and of course, the only way to hear them would be to get the 416 boom mic close to the talkers. The producer asked why I only had two wires and I proudly told him I carried extras, back at the van, if he would go get them for me, I would use those too. So he went away while we kept our interviews going. I still have no idea why they wanted to interview so many people for just a one hour show.

We pressed on, and not being used to being a human sound cart, I kept catching the boom cable and my bag on chairs and things. I guess I did that too many times because then the boom mic started cutting in and out. I saw the problem, the XLR connector was barely hanging from the cable that went into it. I would have to freeze when I found a sweet spot that worked. I was going to tell the producer that never happened on my usual production shows, but he wasn't back yet. I hoped he would hurry, because it finally failed completely. Lucky for me, the sweating pro-



*John & Roberto Duran - both in their prime in 1978*

ducer showed up with my two extra wireless units. Perfect. I told him I would wire the subjects until he came back with another cable for the boom from the truck. I could then wrap it around my boom pole. That guy did not seem happy with my solution. I don't know why, because it was obvious I didn't have a person who was going to help me. He would never give that kind of look to his camera department. We should be a team here. He finally had the PA go get it. About time that PA helped me once.

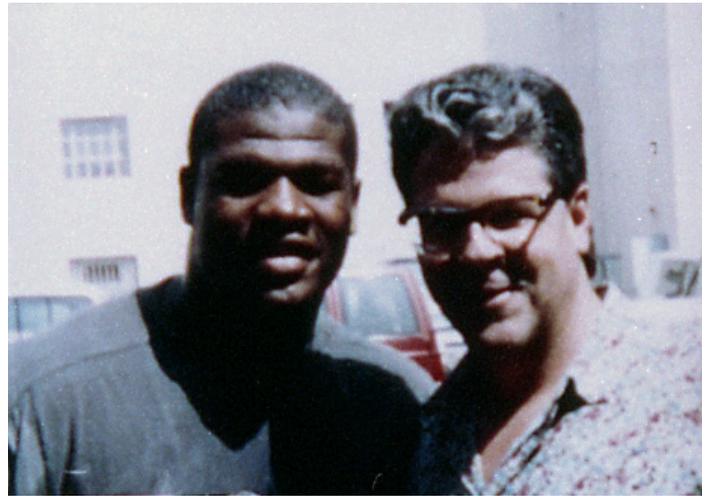
The arena was now filling up for the early events. Our talent dashed about doing funny impromptu interviews with everybody, until I called for a time-out. At least I caught this re-load before it rolled out. Unfortunately, all my tape was in the anvil case I had left...at the top of the arena steps. I made a mental note to figure out a better way to manage my gear next time, as I tramped back up the long stairs and down again, anvil case in hand. This case was becoming the bane of my existence. By this time, they were all in the ring, with a fight referee, waiting for me, of course. I put the anvil case down and ran up the ringside stairs. As I deftly bent over to squeeze through the ropes, my bag caught up on my knee and all my gear fell abruptly out of my bag. Part of it was strewn onto the ring apron and the other part hung over the ropes. I didn't see the humor that they saw in this, as I scooped up the tangled audio mess. It took a few minutes to put back together, but soon we started filming again.

By now, scores of reporters and other camera and sound crews began arriving and doing similar interviews with anybody recognizable. As more sound crews arrived and stepped on my frequencies, my four wireless systems started taking hits. Really bad hits, wipeout hits. The wireless packs on Cortese and two subjects stopped working almost completely. I dutifully stopped the filming as we now had only one working wireless and did what any resourceful sound person would do to keep the show going on, while I waited for the PA to arrive with my boom cable. I took the remaining working wireless pack off Silverman and taped the whole pack to the hanger at the end of my boom pole. I then attempted to record all four people by just a Tram lav mic, which was hanging from the pack which was taped to the end of the boom. Picture that for a second. Well, it worked okay when one person talked, if the lav was within 6 inches of their head. There were some problems though. The first was that when someone else talked, I heard nothing at all until I swung the lav on the pole over their head, which created wind noise and a big gap in the recording until the lav got there. The DP was no help because he claimed I was putting shadows from the ring lights all over their faces, and supposedly he was seeing the hanging lav too. I give myself an A for effort though because we taped for a few minutes and I actually recorded a few intelligible words on one of the talent. Not

so good for the others though, so I decided we should cut, and explained that we could restart filming when the boom cable showed up. Eventually, the sweating PA arrived with my cable in hand and copping a major attitude that won't get him far in life. Unfortunately, he brought me a 100 foot cable. He told me he wasn't going back to the van again, so I made it work. I plugged one end into the mixer and the other into the 416 and twisted some of it around the pole. That left 90 spare feet of now unraveled cable. I scooped it all up around me as best I could and was ready to roll again.

I explained that we would have to frame the shots for one overhead boom because none of the wireless worked by now. It was very hard to boom 3 and 4 people spontaneously talking without any script in a such a noisy area. Under these trying circumstances, I felt proud that I was actually able to record some of the words. As the clock ticked closer to fight time our crack crew ran all over, me carrying my anvil case, while grabbing one interview after another with celebrities and fight people. It was disappointing when Tyson's people barred us from the dressing room without meeting him. Silverman and Cortese went to their ringside seats to watch the fight and we went to a holding area, for our dinner, during the fight. We would regroup afterwards for the post-fight frenzy. It was nice to get off my aching feet, shoulders and arms a break. I could hear the heavily pro-Bruno English crowd chanting and then I heard a big roar after barely sitting down to eat. I guess that must have been when Tyson knocked Bruno out. I still want to see a heavyweight championship fight someday.

So much for a break, it was now time for the post-fight interviews. Luckily, Tyson again refused to give one to us and Bruno was on his way to the hospital. I thought this would all be over now, but no, Mr. Gung Ho producer yells for us to get back to the van right away. We are going to the after-party. My feet hurt but the other pains made them easy to ignore. My back was now tweaked from standing crooked, my shoulder burned and my arms felt like they were coming out their sockets, but it was almost over now. The van parked and the crew dashed off. I put



*Riddick Bowe had the heart of a lion (1992).*

my body armor back on again, reloaded a fresh roll, looked at the anvil case, but my arms told my brain to leave it. I hobbled up the long driveway to the lit up party mansion. When I caught up to the camera crew outside the party, they were, of course, ready to roll. They already had a celebrity waiting on the long red carpet. It was kind of cool to be on the red carpet with lots of other sound people I knew as customers. Between flashes of pain, I felt proud to be one of them. Strange how they didn't seem to be in any discomfort and wore their gear with a kind of elegant organization. Well, the first celebrity interview rolled for about 15 minutes. The second one went on for about 17 minutes before I realized that the Nagra tape rolls are only 22 minutes long. I cut. At least I caught this one. I asked the PA if he minded going back to the van for another roll. He seemed to mind. I made a mental note to appreciate my third person more. I had him bring the whole case, just to be prepared for anything. While waiting for more tape to come, we missed a couple of famous people, but how many could they use anyway? I mean we already had about 5 hours of interviews for a one hour show. He got back and I finally reloaded more tape in time for them to interview Roseanne. My case was now with me as my security

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blanket and we are just standing in one spot in line, so what could go wrong now? And it was going fine, until I looked down and saw that the tape was bunching around the Nagra's capstan. Well, I kept my cool and watched as that bird's nest grew larger. After all, I was very experienced with audio emergencies. I knew that I could wait to re-load until the tape stopped moving over the heads, which it soon did. I cut for an equipment malfunction. Apparently I closed the lid on a loose part of the tape. It could happen to anybody. I then explained to the hissing producer, that standing over me would not help me untangle that mess of tape any faster. I didn't want to have to cut it out. Finally, my deft manipulations got it loose. To speed things up, I threw the armful of loose audio tape into my handy anvil case. I figured I could untangle it later. By then, most of the celebrities had already walked inside. So we wrapped.

The producer came over to me and asked me to hand him the sound tapes. I wasn't able to do that just yet, because I still had to label the boxes....and untangle the bird's nest in the case. Rather than explain that to the grouch, I told him I would give it to him at the hotel. He said he wasn't staying there with us because he was dashing on the red-eye back to NYC. I told him to just follow me back to our motel as it was on his way to the airport anyway, so I could label a couple things. When we got there, I

told him I would be just a minute and took everything back to my room to sort out. I had to hurry. I labeled the still unlabeled tape box rolls as best I could, by guessing. Then I started untangling the tape. I had it stretched out all over the room, when the producer started banging on my door. As I rushed along, I pretended not to hear him. Then I noticed him watching me through the window. When I was done, I opened the door and he grabbed the tapes. The guy was in such a rush that he forgot to say goodbye. I finally heard from him a couple days later. He said he was calling from post-production and I still remember his exact words. He said "Do you really expect me to pay you for that job?". Not being one to haggle, I settled on a check for 1/2 of the invoice I turned in. Mental note – never do another over-the-shoulder fight job.

Postscript: I did a few more OTS jobs over the years and even though I was more prepared, I usually regretted it. At best, it's a very hard way to make a living. Whenever I run into a sound person on an over-the-shoulder job, my heart goes out to them. Today, though the recorders are lighter, it's an even harder job than ever before. Often there are as many as eight wireless plus IFB, camera hops, batteries...I get tired just thinking about it.

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# MY BEST AUDIO EXPERIENCE

While I was working exterior on a show in Buffalo, in the snow, in the middle of winter, I thought “Why Me? Why can’t I get ever get one of those good shows like everyone else?” Then, one day it happened. The phone rang and my UPM pal, Randy Turrow asked me if I wanted to do a show shooting on Costa Rica’s beaches for three weeks. Just like that. I couldn’t answer. I was so overcome with happiness, I almost went into shock. Then the kiss of death happened when Randy said, “Come on John, it will be fun”. We all know those are the jinxed words that mean just the opposite. That’s when I knew I was being fooled again. I re-called my last over the shoulder job, when I said it would be fun to do the Tyson fight, and considered telling Randy I would have to pass. Then, Randy reeled me in when he said the next magic words, “you can take a boom man with you and all you have to do is the behind the scenes portion of the Making of Supermodels of the Rainforest Video.” He had me at the word “supermodels”. There might be some upside here. After all, I was a single man then and not quite over-the-hill (like now). Even though my chances would be better winning the lottery, I could at least say I met a supermodel. I got all emotional inside and I tried to stay cool as I screamed “yes, I think I’m free then” and pinched myself again. This can’t be true. Those gravy jobs go to other people. Never me. After all, I was the guy who always worked in places like the Death Valley in the summertime and Niagara Falls in the winter. This was my time and I soon was wearing my Hawaiian shirt as Mike Garner and I went off on the adventure of a lifetime.

Upon arriving at the San Jose airport, it was raining hard. I went to pick up my gear and the customs guy pointed to the runway outside, where every Pelican case I had was sitting wide open. I knew then that this was just another vicious hoax that the audio gods were playing on me. I always heard that locations are not vacations, and this seemed to be the case already, but then a strange thing happened, as I walked towards the gear, it stopped raining. The sun came out. The nagra was fine. The rest of the gear, although wet, would be okay too. Then a driver materialized to help us load the van. It was then that I noticed the female passenger in the shotgun seat. A young Rebecca Romijn put her hand out to shake hello and smiled sweetly. I got weak in the knees. Her sheer beauty took my breath away. After stuttering and stammering something, we jumped in and took off. That was the last time I had anything to complain about for the rest of the vacation, I mean location.

This was like no job I ever did. The hotel was terrific

and Mike and I had a few paid days off to sightsee, while the rest of the crew went off to scout and get stock footage. There’s nothing like getting paid for not working, but on this show the work was like not working too. When we finally filmed, it was always in one paradise after another. First, we drove up to the beautiful mountain cloud rainforests with a couple of stunning models. We shot at a volcano, then drove over to Quepos, on the Pacific side. We went up and down incredible rivers and beaches. We had carte blanche government permission and guides to see and go places where tourists are not allowed. We even watched the sea turtles come ashore to lay eggs when we ended up at Tortuguero, on the Caribbean side. There was amazing beauty everywhere, and the scenery was pretty good too. I thought a 21 year old Tyra was the most beautiful woman I had ever seen. Then I thought the same thing about the other models, including Frederique, Nicole Beach, Brenda Schad, Leilani Bishop and others. From moment to moment, I couldn’t make up my mind who was the most sensational perfection of all. Mike and I schemed to make best friends with the hair and make-up people, because they were their confidants. Each night, they would escape the hotel to go party in the local bars, with Mike and me in tow. For sure, they were all fun people but my personal favorite was Brooke Boisse. I thought she was a lovely beauty and a really great person to boot. We stayed in touch for awhile. She was unpretentious and even put up with being my date for the IA Convention Ball in New York City. She wore a nice evening gown and corsage from me. If I had a dollar for every jaw that dropped, I’d be a wealthy man. It was like an episode of Beauty and the Beast. Pigs flew that week.

I can’t speak for Mike, but I’m pretty sure he would agree that this was the best job he ever had too. When we were not working, we were partying with the best looking people on earth and it was one of the highlights of my life. It almost makes up for the awful Tyson job I worked. Almost. It was my first and only model shoot. I wish there was some way I could just work on those all the time, because I would never retire. Just traveling to the best places on earth would be enough to do it for free. This beat any vacation I ever went on. Alas, it was also my last model shoot. Real life sank in again and now I find myself reminiscing from long ago, as I pathetically type on this keyboard. So, at this point of writing this article, I wonder if I should keep wasting words...or just let the pictures do the rest of the talking for me? You will be happy with my choice.

*View video clips online here: <http://tinyurl.com/n6ahwv>*





## BEHIND THE SCENES WITH SOUND MIXER STEVE MORROW

“Fame” was a movie I had been hearing about for the last few years. The production company “Lakeshore Entertainment” and I had made nine movies together before “Fame” was filmed. From the moment I heard about the remake I knew that I wanted to be a part of it.

I’m used to difficult films, from all the car work in “Little Miss Sunshine” to the run and gun nature of “Crank.” I like a challenge and felt that “Fame” would be just that, and a real chance to do a musical which is something I’ve wanted for quite some time. Recording on Fame was more of a technical challenge than anything else, well I should say, the prep was. There wasn’t a post supervisor on the film in prep, so the editors, myself and telecine came up with a plan.

I recorded the film at 24bit 48.048K at 30FPS. Scott Francisco, our wonderful ProTools operator had all the music at 48K 24 bit. 29.97 nd , driven by my two Sound Devices 788T recorders we would pull him up on set for playback to 40.084k at 30fps. I had a 100’ snake going from me to Scott. The snake had a BNC cable and 4 XLR’s. The BNC carried the word clock to pull Scott up to my speed for playback. The XLR’s carried time code that was recorded on track 4 of my mix, Two stereo music feeds and an extra line that we could send Scott a live vocal or instrument. Kevin Tancharoen (director) wanted

to always have the option of trying any performance live, vocal or instrumental.

Here’s how it breaks down:

Sound Devices 788T x 2  
track 1 = mix  
track 2 = music R  
track 3 = music L  
track 4 = music TC  
track 5 = prefade mic (boom)  
track 6 = prefade mic  
track 7 = prefade mic  
track 8 = prefade mic

Telecine would create a window burn of the time code from playback, that was recorded on track 4, that way if we ever had to start and stop playback during a take the time code would just switch in the window burn for the editors. Tracks 2-3 were the music playback tracks in stereo for editorial.

We never got into more than four mics on any given shot, so we never ran out of tracks. Having telecine set up for time code and music on tracks 2-4 meant that

on days we didn't have any playback at all I would still record those tracks blank; I didn't want to change it around and mess up post later just to save on disk space. Meaning that we would record around seven gigs a day per recorder.

On set we had a music coordinator, John Houlihan, he was the one that everyone differed to on lip sync and whether the actors were using the instruments and props correctly. He would also specify what equipment he would like to use for the various playback on the film.

I knew it would be a heavy music show so, I invested in four JBL Eon's, four transmitted ear wigs, a Comtek base station for the earwigs and a thumper. In prep we created a detailed list of what gear we would need on each day. We all know how set works and I didn't feel like asking transpo to make a run every time we needed to rent more gear, so I bought everything. A scene that only called for two playback speakers in prep quickly turned into, four playback speakers a thumper and four earwigs on set. This happened everyday. "The violinist can't hear her part over the drums", so we would set up an ear wig feeding her only the violin piece. We also had a "spot speaker" that Scott could put a different feed into, for example if the drummer was missing the beat we could easily move in the spot speaker with just his part on it.

Aaron Grice (utility sound) and I spent a week in prep building a new Utility Cart that would hold everything we might need for every situation that could possibly

come up. The only things it doesn't carry are the speakers and thumper. It was one of the best investments we ever made. Most of the time our trailer was parked a mile away and we didn't have the luxury of going back a forth to get what we needed. The film was scheduled tight so the days were fast paced, so having what we needed on set every day was great.

When it came to the dialog it was your standard set up, boom as much as possible and radio what you couldn't. The only difference was in the dance class, which was entirely boomed, do to the tight fitting costumes. Craig Dollinger (boom Operator) had no choice and only asked the cinematographer once to help him out by only running one camera.

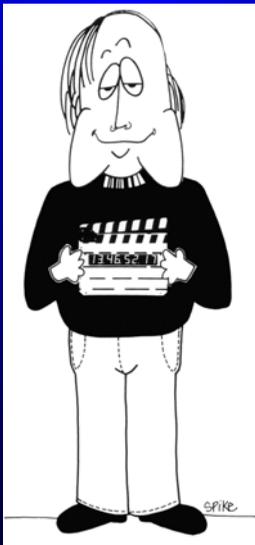
Most of the audition pieces at the beginning of the film were live recorded. In these cases we would bring in two MKH 50 mics for a stereo effect. The 50 is my mic of choice, I'd bet that every shot that was boomed on the film was done with a 50, otherwise I use Sanken COS 11's for the radio mics (sm transmitters).

This film was shot entirely on location, 40 days in Los Angeles and 4 days in New York. The schools that we filmed in were all in session at the time so we worked around their schedule. From time to time in the dance classroom set we actually changed shots because there were sounds of kids playing on the playground outside and it didn't work for the scene, "INT. NY DANCE STUDIO –





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NIGHT". On another set we were shooting inside of an actors trailer and we had one of those rare Los Angeles down pours. The producers had the FX dept hogs hair the entire trailer. So when it came time to record, it was perfect. They were always helping our dept with things like that. Which is huge and very rare, as we all know. I've done a handful of films with them and they always care about getting great sound.

I got into the business in Seattle WA in 1996. I worked as a boom man on a few local films. The hard part about Seattle at the time was the film business was more of a hobby and not much of a career. So I moved to Los Angeles in 98' and started booming and quickly moved up to mixing. I had a few hits early on "Wonderland" "Thank you for Smoking" "Little Miss Sunshine", all of which were low budget films. I've always been very conscious of making sure my equipment wasn't what would hold me back from doing the best job I could do. For that reason I'm always upgrading anytime I feel I need to.

Craig Dollinger and I have been working together for almost 10 years now. We seem to go through utility guys every few years, not because they are bad, more that they move up, Robert Sharman was one of my Utility guys and now he's mixing. He was our third on "Crank" and he quickly moved up and mixed "Crank 2". Rich Bullock is another example, he's now moved up to booming and when Craig isn't available, Rich is my next call. Mostly I look for a good and fun crew to work with. This business is hard enough, so why not have a little fun.

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# OSCAR NIGHT WITH THE WEINGARTENS

*Note: Mark Weingarten was nominated for the 2009 Academy Awards for his fine work on Benjamin Button. Afterwards, Mark sent us this personal e-mail about his experiences that night. I thought it was so interesting that I asked if he would mind if we reprinted it. After some arm twisting, he finally agreed. Thanks Mark.*

So we got Slumdogged at the Oscars, as we expected..... but we had a heck of a good time!

Before we left, our neighbors came out in force like our own personal paparazzi and went nuts taking pictures of us (very sweet) in our fancy duds. Nancy's looked amazing in her \$ 30.00 Ebay dress (for real) which held up favorably to many of the (I'm assuming) more expensive gowns last night.

Going to the Kodak theater in a stretch Limo with dark windows was pretty amazing. People on the streets were pointing and yelling. After all it could very well have

been Brangelina in there? They had traffic blocked off for blocks, it took us about 45 minutes for the ten minute drive, with our special Limo pass we went past all the barriers, past the mobs of screaming fans as well as all the people protesting Hollywood's glorification of gays, because of MILK. Thank you Paramount very much for our Limo.

Once through the mob we went into the special police bomb squad limo searching area. Open the trunk, look under the car with mirrors, roll down all the windows, show some I.D. The whole 9 yards.

The red carpet was a real mob scene. We arrived just after Sean Penn and just before Brad and Angelina. As we walked in, the crowd continuously yelled SEAN SEAN SEAN and BRAD BRAD BRAD! They routed the regular people to one side of the red carpet and the major celebs to the other. There were bleachers set up, zillions of cameras were flashing. The Goodyear blimp and multiple helicopters were hovering overhead adding to the general sur-reality (I know).

Inside the theater is very beautiful. There was an open bar when we first arrived and really good Wolfgang Puck hors d'oeuvres being passed on trays. We partook in both. Up close we saw Sophia Loren, Brad and Angelina, Sean Penn, Josh Brolin, Tiraji Henson, Jennifer Aniston, Werner Herzog, Gus Van Zandt, Kevin Kline, Phoebe Cates, Bridget Fonda, Meryl Streep, Goldie Hawn.....

We had really great seats in the Orchestra, stage right. You forget that in addition to being there for the awards, it is a show, and very good show overall, I thought. We watched a bit on Tivo and we were able to find ourselves applauding, (at around 50 minutes in) as the the costume designer goes up to get his award.

They told us not to bring cameras, but it seemed that everyone else had one. I did leave my camera in the limo as instructed, but snuck some pics with my cell phone camera once we were inside.

It was a drag to lose, of course. Ren Klyce our sound designer and I had worked out a bit where he was going to give his thank you speech and I was going to interrupt, he would tell me not to overlap and I

would tell him to speak up (sound guy jokes, all the actors would understand) but as you know we didn't get our chance to do that.

The food at the governor's ball was literally unbelievable, lobster salad, short ribs, chicken on risotto a "chocolate" bar including three chocolate fountains. Absolutely exquisite. Not only did they serve one beautiful dish after another at the tables, but I found in wandering, looking for various friends, an immense shellfish sushi bar that was piled no exaggeration three feet high with shrimp oysters crabs etc.

The whole evening was pretty darn cool. For me the absolute highlight was seeing Jerry Lewis sitting three feet away. I pointed at him and smiled and he smiled back and gave me a big thumbs up! Was a very sweet moment.

The glamour continues here today in Hollywood. The next morning I carried multiple buckets of sand to the trash. Seems all the neighborhood cats (including ours) have been using Oliver's sand box as a litter box. I'm sure Brad Pitt did something similar at his place this morning, all us celebs do. I wonder if he received his jury duty notice today too?

Thanks to all our friends around the globe for your kind words of encouragement and support. It really meant a lot to me to know there were so many people rooting for me.

As Nancy said, next time we go Oliver will be old enough that we'll be able to bring him with us. Right?

Love to all, Mark.



# ***AN OPEN LETTER FROM YOUR SOUND DEPARTMENT***

WRITTEN BY: JOHN COFFEY (WITH MANY SOUND PROFESSIONALS AROUND THE WORLD)

This paper was written to help directors and producers gain a real understanding about how they can get quality sound recorded on their set. We, the sound community, have a common bond to help you make the best project possible.

We will not discuss the topic of how to mix, as this is the part of the process that you already trust us to do to the best of our abilities and experience levels.

We want you to have this information so you are able to make informed decisions that will affect the recording of your sound. This information could keep you from making decisions that are harmful to the quality of your film. You may not always know what you don't know. So we will help educate you about some of the obstacles that we face in recording audio. This is a prerequisite before we can even begin to get usable production sound.

We are in the new age of digital sound. Theaters have wonderful SDDS, DTS, Dolby, THX and 5.1 surround. Home audio systems can often be better than many theaters. Sophisticated audiences now demand that their DVDs have high quality digital sound. Yet today's production sound departments face more problems and greater apathy from production than ever before.

## **THE ISSUE:**

Gathering your audio tracks as you shoot is a continuing process than requires at least minimal co-participation from production. This is not about a simple decision to loop or not loop. We, the sound crew, are the ones that you depend on to create and protect YOUR original sound tracks during production.

Unlike the majority of the people who are working for your on-camera results, the mixer's efforts can not be "seen" in the picture frame. Almost no one else really hears everything that our microphones pick up. Too few are even sure just what it is that sound crews do and only the obviously bad sound problems get brought up for discussion.

Our job includes monitoring the sets for unnecessary, accidental, ignorant, and sometimes even malicious actions (through lack of action) that may compromise your sound track. We are too often frustrated by the state of conditions that now exist on most sets. Many times we are expected to solve all the sound problems alone, when that should always be a collaborative effort with the assistant directors and other set crafts. Some of whom can even

inadvertently create these problems for us.

At times, sound mixers can be made to feel like a pest or even a hindrance to the film's progress. We don't like being put in that untenable position because it is unnecessary and possibly humiliating. Our job is not adversarial to the rest of the production and we certainly don't want to be the set "sound police" just to do the best job we can.

A mixer on a tough show, trying to get you good sound, stands a good chance of burning out from combating all the excuses and defenses put up by others because they can't see the audio in the picture and everyone else works for the picture. It's hard to put out without getting the above-the-line support. The temptation is to cave into the pressure and just go with the flow. That's not going to be good for your film.

The problems that we face may lead you to believe that good sound cannot be achieved without some set disruption and additional costs. Nothing could be farther from the truth if reasonable measures are anticipated and endorsed by you in advance, both in pre-production and production. Then the rest of your crew will follow your mandate to consider your sound too.

We know the limitations of our equipment. For example, microphones are only tools. They don't make miracles happen. If on-set audio problems are not dealt with immediately, they will come back to haunt you again in post production. Good sound can usually be achieved simply by using reasonable preparation to avoid pitfalls. For us to do a better job for you, we need your understanding and backing.

## **THEN AND NOW:**

To understand the sorry state of audio affairs today, we must go back in time. There once existed a major studio system where an assembly line of crafts worked together to churn out film products. No matter which studio we worked at, all crafts understood that they were expected to take reasonable measures within their ability to help for good sound recordings. It was instilled as part of their general job description and passed on to the young apprentices. Without asking, a seasoned Grip would sharply cut microphone shadows with flags. The Electric department would change out a noisy light that buzzed. Camera assistants would try everything possible to quiet camera noise (there were even many times that an operator would literally put

blankets and pillows over a noisy camera and even themselves, no matter how silly it looked. All that mattered was getting the shot right for everyone.

Every other craft would do whatever was deemed reasonable to help get good sound, because it was considered to be part of their job. No one had to try to persuade them to do it. It was an era where reasonable co-operation with the Sound Department was the normal way to make good films and television shows.

Today's crafts still have pride in their work but it seems they no longer consider helping out the sound department become a part of their job description. The problems began when the in-house studio training system broke down and non-union independent films proliferated. Along the way, the process of passing down "rules" for film jobs changed the way they perceived production sound. It's now sometimes us and them, not we.

The other crafts now sometimes don't think they should do anything to help you get good sound for your show. There is no longer an apprenticeship system to pass along this knowledge. Newcomers to the technical crafts now learn on the job, under fire, through osmosis.

Today, those same crafts must now be requested in some instances to do reasonable things necessary to protect your sound tracks, because they just don't consider it to be a part of their job any more.

The Sound Department would gladly cut the shadow on the back wall of the set or cover the noisy camera ourselves, but that's not how the game is played. Instead, in varying degrees, we have to convince, cajole, coerce, plead, and use every other psychological persuasion technique to get the other crafts to help us prevent sound problems.

Last-second, scrambling time on set should only be used to fix the unexpected problems which will inevitably occur. Instead, that last second is too often the first time that the sound mixer finds out about changes in dialogue or staging, or discovers unwanted noises from on or off of the set.

All of the other departments now work only for picture. Every single person on the production, from make-up and wardrobe to grip and props, concentrates only on what's seen in the viewfinder.

We want you to know as much as possible about the audio minefield lurking on every set. Each show is different. Your last mixer may have had no problems. That same mixer on your next show may be perceived by you to be "complaining" too much, when they are simply being prudent by communicating information about what you are now getting on your sound tracks and what sound problems can be fixed. The bottom line is that these are your choices. Just because we hear a noise does not only make it our problem. It is your problem too! After all, we turn the tracks over to you at the end of the day.

After reading this, we hope it will be easier for you to make more informed decisions about when it's really the time to loop a scene. It's far too late to reverse a sound problem later in post. Even though this topic is last in the chain of events, we should start first by talking about why ADR is not a fix:

### **LOOPING:**

It is important to consider the gravity and dramatic consequences caused when the words "Don't worry, we'll loop it" are uttered. You are obviously aware that extra ADR adds a financial burden to your budget, but the consequences are much greater than they appear. Looping is only an answer for situations where all else fails. It's not just a quick fix later if the original on-set problems could have easily had been rectified with a little extra knowledge or communication.

Looping means that you are also making a huge artistic compromise that damages the film in many other ways that you may not be aware of. Obviously, you realize that certain actor's performances are often far better in production than in an ADR booth. Many actors are also not very happy at all to be in looping later and are not shy about expressing that fact. Making a film is an artistic endeavor that lives forever. You cast great actors to bring their collaborative efforts together in the making of your film. The essence of the scene can sometimes be lost by looping. The voice of a great actor, totally in character, moving and interacting with other actors in three dimensional space, is a treasure. Their art breathes real life into the film.

It's also not cheap, but when you must loop, the top professional studios do have their fine reputations for good reason and are set up to do the best possible ADR. However, when ADR must take place, the actor has to try to re-create their performance while sitting in a sterile sound booth, in front of a big microphone, matching lips to a performance from a scene shot months before. That is a long stretch from the true creative process on set. Sure, ADR will be less noisy than even the best production recording, but it lacks some of the spontaneity and emotional truth of what's captured when you use your artists' talents on the set. That's hard to duplicate.

ADR is not the same as set acting. Many of the great method simply actors hate it. At best, it provides a close recreation of the original scene unless you were looking for something else later in post. Then, the post budget could be better utilized by not going backwards to fix sound tracks that were already recorded. The budget would then be spent enriching the film's sound in post.

There are some respected post sound professionals who think you should loop immediately, on or very close to the original set, and as soon as possible after the scene is shot. The performance will be a better match and the sound will be more natural this way. If not on set, there are

also companies that specialize in on-location looping, using video assist for picture in portable studios, but at that point you may want to use the post houses later.

At best, looping because a fixable set background was not dealt with early is often fiscally irresponsible. Be sure that the audio problem really can't be fixed before you make a decision that you may regret later. Never allow the simple impatience of the moment on set to be your reason to loop. Be sure you have first covered all your reasonable alternatives.

### **FIXING SOUND PROBLEMS ON THE SET:**

Do it before they happen. Most events that ruin sound tracks are totally predictable and repeatable, show after show, year after year. It would be hard to come up with a sound problem we have not seen before. These are obstacles that are clearly identifiable and quantifiable. The difference between getting quality sound or bad sound is usually determined by how many of these predictable negative factors take place on your particular show and how they are handled. There are few problems that don't have quick solutions if proper diligence can be taken in advance. The sound mixer is your advocate here. Let them try to identify the external detrimental audio problems and those from each craft which can cause or fix audio problems on your film.

### **PREPRODUCTION:**

Good sound begins by anticipating the outcome well in advance. Communicate early and often with your mixer in pre-production. Pay the mixer to go out and listen for potential poor audio on sets ahead of time. The mixer might even make a test ambient recording to see what noises can be removed in post, just as the DP does with camera tests for best picture. Do this before the locations are locked in and before the scouts with your key department heads. If the mixer is unavailable, have your mixer designate a trusted associate to go for them. In the end, it's cost effective.

### **LOCATION SCOUTING DEPARTMENT:**

More can be done here to save a film's audio than any other department. Set selection should consider sound too. At least try to weigh the environmental noise factors. A minimal amount of consideration should be given to potential audio problems in advance.

- Change to another location when "the look" is not a big issue. Often, we shoot in a place which could have easily been substituted for another location or the day moved to a weekend, where the environment might be better controlled. Many times we film at a location which has construction, traffic, schools, aircraft flying patterns, and other obvious background noises. Only shoot in those kinds of locations when it's absolutely necessary and essential to the

film.

Lock down all the noise problems- before we get to the set.

### **Examples:**

- Always consider gaining full control of the air conditioning. This is a must. Without a/c control, the audio background will change from shot to shot as the air goes on and off. If it is in a large building, have a PA standing by with a walkie-talkie to turn the air back on after each shot. When filming in exterior locations, it can be just as important to kill the big a/c units for other buildings that are near the set.
- Have control over all noise makers at typical locations such as restaurants, bars, offices, houses and hospitals. All refrigerators, computers, ice makers and other machines must be able to be turned off. Computers spinning hard drives and fans are particularly important to kill. Request fake prop computers where you anticipate a problem. Pay off gardeners for a one hundred yard perimeter around houses.
- Try to schedule filming after or before hours in locations such as bars and restaurants.
- Avoid certain kinds of roofs during predictable rain days, especially tin warehouses.
- Make sure the Electric department can send in cables to the set and still keep the windows, doors and openings closed up to the outside.
- Avoid creaky old wood floors. They are a recipe for disaster.

### **ART DEPARTMENT:**

- Confer with the sound department when adding noisy set furniture, computers and machinery. Order noiseless prop computers.
- Try to consider overhead mics before building low covered ceilings, hanging lamps and cross beams.
- Inject foam into set constructed stairs and steps to get rid of fake hollow footsteps over dialog.
- Whenever feasible, carpet the sets to deaden the echo of live rooms where the majority of dialog takes place.

### **ASSISTANT DIRECTORS:**

None of these implementation plans will succeed if the 1st ADs don't support the sound on your show. Believe us when we say that many times they don't! Most 1st ADs are excellent, but some become a nemesis to sound. The crew will take their cue to stop co-operating if it's clear the ADs react at the expense of getting good sound. Derogatory statements like "waiting on sound" or "we'll loop it" are unproductive and sap our energy. Those kind of ADs may need a nudge from you to turn convince them to consider the audio on your film.

- If you are paying for police, have them lock down traffic whenever possible. It's becoming harder to get done,

but professional Set Cops can be quite a major asset when properly utilized.

- Get quiet lock ups on set. Do not allow any walking or talking. Station your PAs at key locations outside, and most especially under windows (the trick is to keep your PAs from bunching up and talking too). “Lock It Up” means that we should not hear any work noise from our crew. No engines, moving gear, chatter, etc. With so many crafts on different walkie channels, they often don’t hear a roll, so it should be loudly announced by PAs too.
- Please allow the sound department to make quick corrections that are reasonable, without announcing that we are “Waiting On Sound”. Do they also yell out “Waiting On Camera” when a D.P. adds a light? No. Do they yell out when waiting on a Camera Operator or Gaffer when they make their inevitable adjustments? No. We do not want to intentionally hold up production when factors out of our control necessitate fast action. If we need another take, don’t announce “going again for sound” unless you also yell out “going again for focus or Dolly Grip” when they need another take.
- Enforce silent pantomiming from the background extras. Ask them to show up in rubber soled shoes when possible.
- Allocate a reasonable time and place for an actor to get wired. It won’t help us to go quicker if you push the sound crew to wire faster when the actor insists on getting wired at the last second on the set. Conversely, don’t make a sound person sit outside a star’s dressing room wasting valuable time that could be used to prepare for the scene on set. Have the PAs tell the actors to stop by the sound cart offstage.
- When there are closed rehearsals, make sure the boom operator gets to see at least one rehearsal before the actors leave the set.
- Honor our wild line and wallah requests before releasing the actors and extras. Waiting to do them later often means they won’t match the shot and possibly be enough reason alone to loop a scene.
- Honor room tone requests before breaking the set up, and stop all talk and movement. Room tones are very important to do immediately, before the ambient sound changes.
- In plane or traffic infested locations, roll as soon as the engine noise is tailing off, otherwise another plane or bus comes in range and the window of opportunity is lost. Too often, we are not ready to roll as the outbound noise abates and the purpose of waiting was defeated.
- Keep the set quiet enough before we roll to hear the status of the incoming and outgoing planes.
- Be sure to give the Sound crew advance notice when playback will be needed and on which media it will be played from, so that the proper equipment can be ordered. Provide the mixer with post-approved audio tracks at the correct sample rates for proper sync.
- Control transmission by walkie-talkies, cell phones and

paggers during takes and final rehearsals. They can wreak havoc on wireless microphones.

- Every time there is a new set-up, announce out loud what kind of general shot is taking place and the direction the shot is facing. Incredibly, it is a common mistake to keep the crew in the dark about the next shot. A lack of communication about the upcoming shot can lead to chaos and an inefficient use of time.

### **PRODUCTION MANAGERS:**

- Budget a third sound person and the proper amount of audio equipment. A third sound person provides invaluable support so that the boom person and sound mixer can keep preparing, rehearsing and shooting. Not to include a third would be penny-wise and pound foolish. Time saved on set, at the moment when every department is ready to shoot, are dollars well spent. When blocking changes necessitate adding a second moving microphone operator, it can be done in a jiffy, without stopping production to show someone else how to perform this skilled job. Would you ask a PA to focus a second camera? Lots of other problems can be solved more quickly, from killing an errant fan to fixing a director’s headset on the fly. In a pinch, the third person can even keep production shooting in the event of a sudden emergency or sickness befalling a sound person on distant location.
- When considering on set sound production decisions, consider the post budget ramifications later.
- When booking studios, check that your stages are quiet. Even the newest and most modern stages often have fans and dimmer banks located on, or so close to the stage that they are a terrible problem for the entire shooting process.
- When you must book a warehouse stage, please sound-proof it enough so we can record clean sound. Also, rent a red light system for it.

### **CAMERA DEPARTMENT:**

#### **Camera assistants:**

- When there is bad camera noise, make all reasonable efforts to contain it by using barneys, glass, blankets, tweaking, etc.
- Leave slate on at all times to ensure proper time code is maintained (don’t hit the switch). Let the mixer know as soon as a slate shows any possible time-code issues.
- Let the sound mixer know what frequencies are being transmitted in case it steps on wireless mics or comteks. Test and be prepared to kill laser type focusing devices if they cause microphone interference.

#### **Operators:**

- Make your boom operator aware of any last minute changes to the frame size so they can make adjustments.
- Communicate and work out any problems with the boom operator, long before the first team is called in.

- If you tell boom operator they are “in”, give them another new line at the same time.
- Be willing to put a cover or blanket over a particularly noisy camera.

### **Directors of Photography:**

- There is almost never a good reason to light a boom operator off the set. An overhead mic, in capable hands, should be able to dodge your lights with a little collaboration working out the boom shadows during the lighting set up. It is important to give the boom operator the space above the frame.
- Remember the sound is never as good with wireless as it is with an open boom mic. A quality picture should always be able to happen while an overhead mic is operating between shadows. If a boom can not operate within reasonable parameters, something is usually really wrong with your lighting.
- If you change some lights at last second or between takes, be sure to work it out with boom operator before shooting again.
- Don't use noise-making lights like Xenons, close to the set, unless the director agrees, long ahead of time, that the whole scene will be looped.
- Don't ever say “loop it”! It's not the DP's prerogative. If the DP conveys to the crew (who all work for picture) that sound matters to the film, they will follow that lead and be more attentive to potential sound problems.
- When shooting insert vehicle scenes, try to consider sound problems like lighting so that windows can be closed.

### **SPECIAL EFFECTS DEPARTMENT:**

- Make a reasonable effort to keep the offstage noise-making devices away from the set. Baffle them when dialogue is in the same scene.
- When making rain, put the rain machines and water truck as far away as possible.
- Use hogs hair to muffle raindrops on roofs and under windows.
- When a fan is used to blow a curtain or plant, work it out with the sound mixer before the noise problem is heard on the first take. Foliage can still be made to look natural with forethought of using strings and wires to move the vegetation when fans are too noisy.
- Give warning of Ritter Fan noise when creating dust and leaves blowing.
- When using fireplaces, try to limit the hissing gas sound.
- Heaters on cold sets need to be shut off well before rolling to eliminate the crackle and pops from shutdown.

### **WARDROBE DEPARTMENT:**

- When requested, the wardrobe department can help by creatively placing the wireless in the best possible position on the actor's body. We need your support and thank you in

advance for helping us.

- Be sensitive about making negative comments about bulges because the actors can be overly self-conscious about wearing a body mic, even if we can guarantee it won't be seen in the picture. Realize that a tiny lavalier mic can almost never be seen, especially on most wide shots, even when placed on the outside of wardrobe. If your eyes can not see it at a shorter distance than the lens size of that shot, it won't be seen.
- Avoid noisy clothing, especially when the principal actors will wear the same clothing throughout much of the film.
- Cotton is our friend. Silk is our enemy. Cotton tank top t-shirts placed underneath actors shirts when possible, will often fix the bad sound problem of the dreaded clothes rustle.
- Silk ties should be avoided. At least modify the inside with cotton, especially for primary actors wearing the same wardrobe in several scenes.
- Consider the impact on sound when choosing chains, necklaces and other jewelry.

### **PROPS DEPARTMENT:**

- Make an effort to keep noisy props as quiet as possible, especially in the following common problem areas:
- With guns, always let the mixer know if you are using full, 1/2 or 1/4 loads, how many shots are planned to be fired, and sequence they will happen.
  - Help us generally with all your professional muffling tricks such as fake ice cubes in drink glasses, spraying shopping bags with a water mister, keeping dishes quiet on the tables, use padding to avoid clinks, etc..

### **GRIP DEPARTMENT:**

- Use cutters to kill boom shadows.
- Use all reasonable measures to reduce dolly squeaks, including putting a dance floor down if floors creak.
- Put talcum powder around the rubber wheels when needed.
- Use grip blankets to deaden outside sounds from open doors and windows.
- Make baffle covers for the loud set machines, fans and ballasts.
- Fasten down all scrims and gels that rattle in the wind.
- On insert vehicles, keep stands attached to speed rails from clanging, and baffle open windows not seen in picture.
- Use silicon spray on noisy hinges of all kinds.

### **ELECTRICAL DEPARTMENT:**

- Keep the generator as far away as is reasonably possible. Always use a minimum of 3 banded lengths (150 feet) to the first box, and go back from there as needed.
- Supply base camp power to avoid using loud putt-putt generators.
- Use all reasonable measures to keep lights and ballasts from making any humming or squealing noise on set, and

use extension cabling to keep the major noisemakers off the immediate set.

- Run cables so that windows and doors can close to the outside sounds.
- Put variacs for dimming on problem light bulbs.
- On insert cars, clip and wedge funnels to reduce the rattling sound.
- Keep certain lights in silent (non flicker free) when shooting at 24 fps to get rid of the unnecessary high pitched whine.

#### **CRAFT SERVICE DEPARTMENT:**

- Set up far away from sets so that the coffee makers and other devices can't be heard, especially on stage ...and be mindful of the need for a quiet set.

#### **TRANSPORTATION DEPARTMENT:**

- When possible, plan for manpower to push or pull a particularly loud vehicle out of the scene when possible during tight shots.
- Deactivate the dinging noise when door is opened on picture cars, even if it's just tapping down the switch.
- Put base camp at least 1000 feet from set in quiet locations such as deserts and mountains, and 500 feet away in city locations. Keep the individual generators off during the shot.
- Hire quiet insert cars with reasonably quiet mufflers and generators.
- Instead of running car engines, use any alternate quiet power for picture vehicles that must run flashing light effects during the coverage.
- If the scene calls for a closed car interior, an opened-up process car, with no roof, will not provide proper sound and may require the scene to be looped.
- Aim a generator's noisiest exhaust opening away from set and be prepared to park a big truck in front of a loud generator.
- Use only a single key in the ignition to eliminate clanging keys.
- Don't Armor-All or Simple Green a dashboard if microphones need to be taped to it.
- Keep insert trailers and car interior floor area free of all the noisemakers such as the chains, removed side mirrors, nuts and bolts.

#### **ACTORS:**

A good actor is a loud actor. Of course that is an exaggeration, but whenever sound people get together to discuss our jobs, we often talk about an actor's voice timber. Actors who have done a lot of stage work tend to have learned the art of projecting their voice, but that is a lost art now, especially with the age of wireless mics. Sometimes we can barely hear an actor when a mic is merely inches away. You will need to consider asking them to speak a bit louder, especially if you want to add a loud fx tracks later.

- Consider the goal of quality sound before deciding to resist the use of a wireless microphone on you.
- Respect the job of the boom operator. Acting has been done with the boom for decades. "Please don't ask the boom operator to get out of your eye-line when they are just doing their job.
- Tell the sound department when you will do a much louder or quieter take than was rehearsed.
- Do not try to remove or disconnect your wireless mic by yourself because they are fragile and expensive. Find your sound crew and have them assist you.
- Please project louder when sound really needs it.
- Understand that we hate to bother you to make adjustments.

#### **DIRECTORS:**

Collaborate with your sound mixer as you would an editor, composer, DP or writer. We can also enrich your "vision" through sound images.

Find out what problems and solutions exist. Don't fall for the trap where you cringe when you see your mixer coming towards you just because it's usually bad news. Your mixer will get that vibe and start telling you less and less, until sound is no longer a vital part of collaboration on your film.

A good rapport with your mixer will allow you to know information about what sounds bad versus what you can get away with. If you simply trust that the mixer is getting good sound, you may be mistaken. It is always possible that your mixer is doing the best they can, but it's easy to succumb to not taking the extra step, due to negative responses to their unappreciated efforts.

Many sound problems cannot even be heard until the last moment. That happens only after all the other departments have done their job and the set is finally quiet for a rehearsal. Just as with camera, the shot sometimes evolves into a problem that was unanticipated. For this reason, we may need a moment or two to make adjustments when something unforeseen arises or creative changes have been made.

Sound is a part of your entire film making process, from pre-production through post production. It needs to be done right the first time. If you convey this message to your whole crew ahead of time, you will be freed up to spend more quality time with the other pressing areas of film-making.

Remember that the priorities of a UPM and AD's schedules compel them to focus their attention on the production budget. They are not always as concerned about the other costs of a film as set problems add to post production budgets.

The difference between good sound and bad sound on many shows can be only about 5 minutes a day of doing

a tweak here, a wireless change there, adding another mic, quieting footsteps, silencing a door squeak, room tone, a well placed carpet, killing a machine that came on during a take, powder on a dolly wheel, etc. Usually by the time you print a take, the problems have been solved. If not, do another take. ADs or other crafts that stifle this process will cost you dearly later in post.

• **OVERLAPS** - Of course there are times that overlaps must happen for artistic reasons. However, when possible, it's always better not to have overlaps at all during coverage unless absolutely necessary, because you can only be in one cut or the other. It may cause terrible editing problems with that scene if you later decide you want to see both sides of the actor's dialogue. It's always easy to create an off camera overlap later when you want it. Usually, the overlaps on set come from a belief that the performance will be hindered without them. That argument pales because it hinders the face of one of the overlapping performers saying his lines. You can only pick one or the other actor for picture when tied to an overlap, or else loop it.

• **USING MULTIPLE CAMERAS IS THE SINGLE BIGGEST PROBLEM THAT AFFECTS YOUR SOUND.** If considering your audio tracks, there is a proper way to use 2 or more cameras, and an improper way. It is perfectly acceptable to use 2 or 3 cameras, of the same approximate frame size, at the same time code rate. The Sound Mixer's nightmare is when you shoot one camera wide and another tight... at the same time. This means that sound will be compromised by losing 'perspective'. All the actors must then be wired because the wide camera will not allow a better sounding overhead mic to get close enough to the tightest camera size. That overhead mic may be replaced by an inferior sounding lavalier mic and then they can create various problems such as clothes rustle and muffling. This can be resolved by the other cameras only filming non-speaking actor reactions, or just not rolling at all during the wide master shot. Then, you can go to multiple cameras for all your coverage. The bigger problems crop up when lavs can not be used at all, due to a bathing suit, certain actions or extreme clothes rustle that ruins the sound. Then, it's always going to sound better if wide camera angles do not happen at the same time as a tight shot. There is no way around this dilemma except to bring your actors in to loop later.

• **REHEARSALS** - These are very important to the whole crew. It's fine to have closed rehearsals for actors only, but give one to the crew or at least let the boom operator see one. Otherwise, we can only guess where and how the sound will be delivered. The words we dread the most are "let's shoot the rehearsal". You might get lucky, but your sound will probably suffer and you should expect to do extra takes as unknown problems surface.

• **AD LIBBING** - Again, it's impossible to mic lines that no

one knows will happen. If you want to keep an ad-lib, do another take for sound if they didn't get lucky by recording the surprise line the first time.

• **AIR TRAFFIC** - Probably the single most frustrating audio problem on all sets is being in an airplane traffic pattern. Avoid those really bad locations if possible. Everyone knows the sound is being affected. Yet, after awhile, you have no choice but to plow through and start printing those takes anyway. In that case, rather than looping, it's much better to get through the scene with shorter, clean pick up shots that can be cut together later, than to expect an entire clean take.

• **LOUDER ACTORS** - Sometimes we really do need you to get the actors to project in order to save a scene. We need extra volume when we ask for it. Also, in loud scenes (such as a crowded bar or stock exchange) it's best to make the actors speak a bit unnaturally loud. If not, your post background sound will have to be thin because your post won't be able to add the rich background tracks as easily.

• **MOS & Q-TRACKS** - There is a misconception that recording sound on non-dialogue scenes slows you down. That's really not the case. It is best to record sound all of the time because it will make looping much easier when you have a sync reference track to work with. Do not talk over FX shots with no dialogue (such as car drive-bys) because the scene will then have to be Foleyed. It's more prudent to keep sets quiet during all scenes in order to keep rich sound tracks from being destroyed for no good reason.

• Demand a three person sound crew. The quality of your sound will be better for it. Its cost efficient to spend a bit more money to get a good boom operator who will get you better production sound when doing shows with miserly post budgets. Mixers can't always make good tracks without a good boom operator at the front end.

• Always try to allow for just one printed take, in each angle, where you allow 5 or 10 seconds to record silence before calling for a cut. These kinds of sound hooks will often help save some dialogue scenes by getting some camera noise or back ground in the actual set environment that can be laid over the scene.

• Set a policy that the sound mixer will receive any script changes along with the actors and the script supervisor. Otherwise, your mixer is flying blind and will not be as prepared to mix the scene.

• Locations – locations – locations!!! We emphasize this topic again. It is important for you to have quiet locations picked out to scout to avoid burying sound. If you don't ask in pre-pro, it won't happen. Make the locations department work hard to find quieter locations whenever possible. When you must use a sound unfriendly location, think about having a good reason to incorporate the offending background noise into your movie. If a highway or factory is next to it, perhaps you can establish it's proximity in order to justify some of the background noise.

### **Some examples:**

**Shooting near traffic:** Whenever you have paid law enforcement to be “set cops”, use them to do traffic control. Make them work. Have the AD communicate with them on walkies to halt traffic just before rolling. This is quickly becoming another lost art and there is no reason not to safely stop traffic briefly, whenever it’s possible. At the very least, have someone communicate to the AD to roll between red lights.

### **Shooting around water sets (beach, lakes, pools etc.):**

The wave noise changes with the tides. We can deal with that if we get more room tones. The audio problems come into play when actors are wearing bathing suits or wet suits that won’t allow for hiding wireless mics on their bodies. We have bulky water bags to put wireless mics on actors for water shots, but none of them are foolproof to leaking saltwater onto \$5K wireless units. We’ll take that chance on expensive features, but we don’t recommend it on TV budgets.

In situations of water and wearing little clothing, sound is restricted to using an overhead boom. In that particular case, we simply can’t record the tight shot, if it’s filmed at the same time as the wide camera on those occasions where we can’t get a wireless mic on the actor. This can easily be solved by simply using the wide camera alone for the master shot, then, in the coverage, go back to using multiple cameras. Again, without a wide angle shot at the same time, we can drop a boom easily down over the actors in the tight coverage. Also, in wide shots, if the sun is behind camera, we literally can not move an overhead boom without creating shadows. Of course, we all know that certain scenes in the water will absolutely need to be looped, no matter how we cover them.

The same goes for the dreaded Jacuzzi, where tight cameras can save the sound. The water can then be hand swirled with judicious use of a little foam in water and some offstage bubble release. Scenes with low dialogue will certainly be looped in wide shots.

In kitchen locations, there are many problems to deal with including, cooking noise, lots of actors talking at once while walking on hardwood floors and clanging of the silverware and dishes during food scenes. These are all things we can deal with if we have time and co-operation.

You get the idea. Trains, planes, automobiles, prisons, airports....you name it. Locations affect sound. There are no problems...just solutions. Discuss and work them out ahead of time.

### **SUMMARY:**

Looping - The dubbing sessions should not be an afterthought when your film’s photography is over. Know it upfront and be sure you want to be looping later. Looping is not a panacea as it only puts more problems on the back-

end. Avoid blasé performances later. More importantly, it’s often more difficult to bring an actor in to loop than it would have been just shooting the wide camera by itself in the first place and shooting the tight angles with multiple cameras. Many directors just shoot one camera rather than discuss a problem. Usually, the mere discussion about it takes more set time than just shooting the wide shot alone and then going in for the coverage.

There should at least be a clear policy to not loop the star or stars whenever possible. We could almost always save our star from looping by giving them clean singles without a second wide camera shooting at the same time. Of course, that would take a mandate from you.

Directors made aware in pre-pro of these kinds of audio issues, could take it into consideration on their shot list to avoid wide and tight whenever the result would be looping. That would avoid frustrations later. On the set and in pre-pro, let your crew know you need their co-operation to get good sound.

We want to be a low-key sound crew who can accommodate every shot. All sets are understandably geared toward picture and performance.

Sound is only heard from when there is something wrong with audio. We hate bringing up the negatives. We just want you to know we are powerless to prevent looping unless these solutions are allowed.

We may feel the pain if our remedies are not endorsed, but we will go along with your every decision. Sound issues can often be corrected quickly and maybe you can’t afford not to. The consequences will cost too much in time, effort and money later.

This document can serve as a vehicle to open an awareness and understanding of the process of recording audio on set.

As we move towards Hi Def tape, it brings a whole new set of problems to sound. These include the fact that younger generations of film-makers are shooting in different ways. The concept of “rolling” and cut has changed since the cost of tape is so inexpensive that changes sometimes are made on the fly during the scene, without cutting. Its one thing to say “keep rolling” while make-up does a quick pat down, and quite another to say “now say your line while coming in the door,” because the line might have been miked for another part of the set. Then, there should be an understanding that adjustments may have to be made. Also, although there is a growing reliance on wireless to be used as iso tracks on each actor, they are not always reliable. We are also entering a new age where the wireless spectrum is being overcrowded by new broadband devices and spectrum sales by the FCC. Someday it’s possible that your mixer’s wireless freqs won’t even work at all that day, in certain parts of a city. It may soon be necessary to send out professional frequency coordinators to pre-scan a location where wireless must be used. Then, wireless is recommended

ranges could be rented ahead of that shoot day.

\*A very important point with HD is that your boom operator will not physically be able to hold a boom for continuous takes without cutting. In those cases, a Fisher Boom would be necessary to keep an overhead microphone.

We already established that using multiple cameras simultaneously may mean the specific lighting and sound is often compromised. Not all change is for the better. It is time to elaborate on the fact that the art of film making is rapidly disappearing. For instance, video assist has led to fewer wild walls being pulled on studio stages. The camera shots are often compromising the best possible shot when they adjust for lack of set space. There is no way a camera, crammed up against the wall, can always be as good as the shot with the wall pulled out. The crew has less access to fight their way in or be able see the external factors that help make a better product. The actors are now entombed in the sets and expect to be able to act without anyone in their eye lines (which has included the whole set). Even boom operators are sometimes being told to stay out of their eye lines. This makes it very difficult to do their jobs. Ideally, a wall is pulled out and then whole crew can watch the set for any problems that might affect their craft that monitors don't show. Lighting would be better, cameras can then do wonderful dolly shots and a Fisher boom can even work overhead again. It may be time for a return to some tried and true ways of film-making....

#### FINAL NOTES:

The words, "We'll fix it in post", should be replaced "Let's fix it on the set." Reasonable efforts can always be made to accommodate these problems on set. Then your soundtracks will be as good as you want them

to be. It bothers us to sit quietly in a corner while your sound tracks are being butchered. We are only asking that we go back to a recent time of common set practice that makes sense. There is no denying that an anti-sound attitude now prevails on certain shows. Being a set politician is always an important attribute, but your tracks should not ride on the outcome of who has the best verbal skill to persuade people to do the right thing.

Don't even bother to tell your sound mixer that you hate looping unless you are willing to back them up with your on-set support. It is up to you to demand better sound for your show. This can easily be instilled on the first day of pre-production. Make them accountable to use intelligent foresight that includes all departments on a high quality show.

We are not asking for special powers on set, just a little respect for our craft. With your support, we promise to act discreetly at all times and not expect that the sound will be any more important than any other parts of your show. We know there will be times that sound must be looped after it was given due consideration. The word "reasonable" applies at all times.

Most importantly, find the time to communicate with your sound mixer. You need to know if you are getting the best sound tracks possible. Sound and camera should complement your film. The audience is watching and listening. Post production will take over at the end of principal photography, but we always want to hand over tracks that don't need to be "fixed". That allows them to spend their efforts on other post components that give added value to your wonderful project.

Sincerely,  
Your Sound Department

*\*This letter can be reprinted online at [www.coffeysound.com](http://www.coffeysound.com)*

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# THE FINAL MIX: STRATEGIES & TIPS TO ACHIEVE GREAT MOVIE SOUND

Prepared by Cleve Landsberg, with Steve Maslow and Mark Mangini

## Prep and Principal Photography

- **Calling "CUT" too soon:** Allow any sound event occurring during filming or wild track recording to finish completely before yelling cut. Most wild tracks are ruined because the beginnings and ends are talked over during their recording. The beginnings and ends of sounds are usually the defining characteristics of the sound and are the hardest to get clean.
- **Sound pre-production:** Arrange a meeting of the supervising sound editor, the production mixer and the film editor/first assistant and coordinate the proper technical adherence to post-production specs for sound recording and proper digitization of sound for editing. Compatibility is critical, and digital file format standards do not exist yet. Insure that your sound supervisor has read your script before production begins. This allows for a detailed concordance of wild tracks to be generated and arrangements for sound capture of unique/hard to reproduce sound events.
- **Record Impulse Responses:** Allow time for your production sound mixer to record IR's (impulse responses) of each of the locations you shoot. IR's are a recording of the acoustic "signature" of an environment or set that are then used in post-production to create computerized settings in a digital reverb for processing of ADR and Foley. The process takes only a few minutes, with some setup, but yields much more accurate blending of post-produced audio into existing production sound.
- **Ingest All Tracks of Sound Into Your Editing Workstation:** Allocate time or resources for the assistant editor to ingest all tracks/channels of the full-bandwidth (i.e. original masters) production sound into your NLW (non-linear workstation). This facilitates two critical needs: (1) Your picture editor will have available all the isolation tracks recorded for each take, allowing you to select a cleaner version of a compromised audio recording rather than use the "mix" track. It is most common that your production sound mixer will record each actor(s) on separate tracks of a multi-channel sound recorder and simultaneously create a "mixed" track of the separate tracks to facilitate ease of editing. While the "mixed" track is easier to use for editing purposes, it is rarely, if ever utilized in post. (2) By ingesting the raw tracks and ISO's, picture editorial can turn over OMF exports from your NLW to post for immediate use and massaging without the need for costly reconstruction. This technique has the added advantage of allowing post to maintain your virtual mixing settings (i.e. volume and fades) throughout the post process. See Post Production - Virtual mixing.

- **Periodic review:** If possible, have the production sound track reviewed early on in production so that potential problems may be caught early. This should be done in sound studio. Arrange for periodic sound dailies review in a controlled and aligned mix environment to check questionable material for possible on-set re-recording or ADR and general quality control.
- **Get it right in production:** Make sound part of your priorities. Give the production sound team time to place microphones, participate in the scouting of locations where possible, and work with costumers and set dressers. You will never know how good the sound of a film could have been after you lost your first and best chance. ADR is a tool, not a panacea. Do not use it as a crutch. There is no substitute for great production sound in dialogue **and** sound effects.
- **Large crowds:** If your shoot involves large crowds, make arrangements to record them. These are, by far, the hardest sounds to cheat or duplicate in post. Twelve men and women in a walla group on the ADR stage cannot do justice to every situation. These sounds can become critical in unique cases such as political rallies, Romans in the coliseum, or places where foreign languages are spoken. Coordinate with the AD to record these crowds between setups, in-situ, whenever possible. The extras are already there and usually eager to participate. By coordinating with the sound supervisor in pre-production, lists can be generated for specific needs, attitudes, dramatic or comedic content and mic placement.
- **Unique sounds:** Coordinate with the sound department re. the use and release of hard to find or unusual sounding props, vehicles, and locations. If your production is spending thousands to rent a one of a kind Sherman tank, aircraft carrier, exotic car, musical instrument, etc., give your sound team an opportunity to record it as a wild sound effect. This will give your editors a proper recording of something that only a mediocre example of exists in the sound effects library. It is very common to re-rent these things in post to get a proper recording that fits the specific film. Thusly, clean “room tone” is also important. It is most beneficial to make these recordings the responsibility of the Post Sound team and should be budgeted as such. These types of sounds, most often, need to be captured off site where there is no sound “pollution” from set construction, setup work, etc.
- **Music playback:** If music is to be played back on set, allocate time to create a technically correct playback master that adheres to some standard or playback reference (i.e. SMPTE time code, etc.). Insure, where possible, that the mix down of the PLAYBACK MASTER for set is generated from the original multi-track master (original studio session, 24 track, etc) and not a CD. This allows the music department to generate a proper 5.1, cinema compatible mix, later on in post for final mixing. Stereo mixes (common in popular music CD releases), are a sonic compromise and will be artificially “spread” or “up-mixed” to 5.1 for a cinema mix. It is better to have this 5.1 mix made from the original studio tracking sessions and the associated mix down done with the artists/recording engineers approval and input.

- **Live music:** If live music is to be used on camera, preferably shoot the master with the band playing live in the location and use the select take as your sync playback master for all subsequent shots. The track will then have the acoustics of the location and the energy of the musicians interacting in a real performance.
- **ADR on set:** When the talent wraps their last shot and before they are excused from set, have a list of problematic dialog and missing expository material prepared for recording at location. First, the actor is still in character and more able to provide an accurate reproduction of their performance (something that is much more difficult with inexperienced actors in an ADR stage environment). Second, you have the opportunity to make these recordings in a better acoustic environment. This is much harder to approximate in post, digital reverbs and EQ notwithstanding. Third, they are still on payroll, which may save some money down the road. These recordings become more valuable when shooting with young, adolescent and teen actors. Their voices ARE changing before your very eyes. By the time you get to post, their voices HAVE changed and will be extremely problematic in making a match in ADR.
- **Multi-channel production sound recording:** It is not necessarily better. In most cases, one person is talking at a time for obvious reasons. One microphone, properly boomed, can capture most of the dialog accurately. There are many exceptions, of course. For example, ensemble pieces shot with multiple cameras where critical dialogue is happening across a large geographic space precludes efficient booming. Sound recorded with a boom mic is generally preferable to using a body mic. Multiple source feeds for on-set TV, movie, live bands, etc. necessitate multi-channel recording for post synchronization. Multi-channel recording will increase the editorial time necessary to prepare the dialog tracks for Dialog PreMixing as well as increase the amount of time necessary to PreMix them.

Be prepared for these tracks to sound differently than what you have heard during the picture editing phase, in your editors works station. Most NLE's cannot easily accommodate the multi-channel production sound recordings. As such, a crash down or mix down of the multi-channel master is created during recording or done in tele-cine for digitization in preparation for editing. This "crash-down" is not always a mirror of what is on the separated tracks that it was made from and will be used as the sources for dialog premixing.

- **Production sound gear & mixing:** Before starting photography, the production mixer should check his equipment with an (studio) engineer to be sure that it meets specs and any possibility of incorrect gain structure is rectified. No EQ should be used during filming, and mic roll-offs should be avoided (nothing over 90 cycles). Before previews, the picture editor and a projection engineer go over the theatre system with a fine tooth comb. The very least should be done for sound before shooting begins.

### Post-Production

- **Editing:** Make your editing environment as quiet as possible by removing or sound dampening the hard disks that source your workstation. The sound pollution emanating from these drives will mask an accurate understanding of the quality (or lack thereof) of

your production sound. Don't be surprised by the amount of ADR the dialog supervisor recommends because inherent noise in the tracks was masked by the sound of hard disks whirring.

Many a director has been shocked to hear what is actually in their tracks at the mix because of sub-standard editing room monitoring. Align the speakers in the editing room to the cinema standard "X" curve at 85dB SPL. In this way, what you hear in the mix will sound like what you heard in the editing suite. Most edit rooms are set below the standard 85 SPL. This causes two associated problems: the ear hears frequency response differently at lower levels and, as such, you will not know what the actual timbre of your tracks is and, to get the impact desired for an important sound moment, you will overdrive the editing systems sound capabilities and induce distortion into your various outputs for screenings and delivery requirements.

- **Review Your Audio:** Make time to review the materials your sound team has prepared BEFORE the mix. This not only facilitates a faster and more efficient mix, it gives the team more insight into your aesthetic and helps them build future work with your goals in mind.
- **Communicate:** Sound has no codified language. Communicate in whatever vernacular works for you. There are no rules. To communicate the sound you hear in your minds ear, describe it with the things you know best. Speak musically, if need be, in terms of rhythm, tempo, or voicing. Speak graphically in terms of color, mood, form and shape. Speak emotionally and talk about how you want a scene to feel, or not feel. But most importantly, find ways to communicate effectively to your post-production sound team. Work on your sonic vocabulary.
- **Virtual Mixing:** Consider using "virtual" mixing technology to leverage time and money. Virtual mixing is a non-linear (no recordings) process of capturing all the mix work in a project regardless of it's timeline status. Thus, every mix decision you make is stored regardless of it's sync relationship within the project. In this fashion, all the work you do in the edit room, sound design room and temp dubs is saved and leveraged towards your final mix. In the traditional paradigm, this is not the case: once the final mix has begun, all mixing work is discarded and all audio elements re-start their lives in the soundtrack from a null position, having lost any capability to recapture their volume, equalisation, panning or reverberation previously created at other points in the post process.
- **Sound Editors and Mixers:** Be open to new work paradigms. It is becoming increasingly common for the Supervising Sound and Dialogue editors to also be your Dialogue and Sound effects mixers. There are significant advantages creatively AND financially to de-compartmentalizing these tasks. Doesn't it make sense for the person who edits the sounds in your project to be the person who mixes them? That thorough knowledge of the makeup of the tracks reaps immeasurable benefits at your final. Not only will you have established an ongoing rapport and creative shorthand, having already spent weeks or months guiding this individual through the creation of your soundtrack (editing and design) but their familiarity with the tracks themselves will yield a much more efficient work flow once the mix itself has begun.

- **Design and review sessions:** Build time into your schedules to work with the sound team. Sound design and mix review sessions can make a difference to the success of your sound track.
- **Sound design and music:** Create communication between your Sound Designer and Composer regarding placement, timbre, frequency, mood and feel of a sequence. Many a train wreck at the mix has been avoided when you interact this way and work in harmony to achieve the desired result. One often will cede dominance to the other based on passion for a given sequence or creative interpretation heretofore not considered.
- **Looping integration:** The process of replacing a production dialogue line at the ADR studio with an actor again speaking and recording a particular dialogue line is relatively simple, but also problematic. The actor is often "not into it," can't do it, and will even make up excuses. Also the ADR mixer works in an isolated environment, which does not represent the original. Occasionally, the director is "not into it," and the guidance for actor and ADR mixer is not all it should be. Remember, at the final mix the re-recording mixer receives that particular ADR dialogue with no noise associated with what the original dialogue had. Digital reverbs and EQ can't do it all.

There is a new technology in digital sound processing called "Convolution Reverb". In essence, it allows a "snapshot" of the acoustic characteristics of a location to be recorded and converted into a digital reverberation device set of parameters. To create this "snapshot", a burst of controlled sound (pink noise) must be played in the location and rerecorded with special microphones. This "burst" only takes seconds but allows the re-recording mixer to create a very accurate reverb setting to process ADR that will need to be integrated into a scene shot in that environment. These reverbs are always a better match than the ones that come as a "preset" in most digital reverberation devices.

- **Know the limits:** Be aware of your post production spending capacity. Use it wisely for your goals. Too much micromanagement can be very ineffective. Choose the emphasis for sound requirements carefully to get the most mileage in quality. Every movie has its own time and money limits. Protect against coming up short on results at the end of the road.
- **Be decisive in post sound:** If you don't know what you want, allow your sound team to help find it for you.
- **Genres:** Sound is perceived emotionally, as well as intellectually. Each genre, such as comedy, action or drama, demands its own approach and sound sensibilities. Tap into the re-recording mixers' well of experience as a vital resource; and, then, give clarity to the director guidance.
- **Digital elixir:** Digital technology is not a substitute for common sense quality in every phase of the production and post process. It is a tool that enhances what we can do, but is not the answer to every problem. Incorrectly used, digital can lead to disaster like anything else. Good decisions in a timely manner will always help you get the best sound.

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# THE ART OF BOOMING

## WITH FORREST WILLIAMS

AS REPRINTED FROM A DECADES OLD ARTICLE,  
SHOWING THAT SOME THINGS NEVER CHANGE.

Forrest Williams came to Hollywood with a degree in a theater and film and die-hard desire to be involved in “the business,” his ultimate goal being to direct. He hit Hollywood “this rosy-cheeked attitude that, of course, you want to help, of course you’ll want to look at my student film, of course I’ll direct your next feature.” The first door that opened up for him was working at an equipment rental house that specialized in sound equipment. There he learned “the grass-roots technical end of sound” and accumulated enough days to get into the sound union. He continued to work in sound, gaining experience as a cable man before becoming a boom operator, on such films as *The Rose*, *Witness*, and *Escape from Alcatraz*, *Death Valley*, *Americathon*, and *Damien-Omen II*.

The boom is a fish pole that attaches to the microphone. If you ask me, “Is it heavy?” I’ll tell you, “It breaks my back, lady,” Fortunately a roll of film only last eleven minutes in the camera. It’s not a matter of being muscular or well built; it’s more like a long distance race. Endurance counts. You start to shake, but you just have to ignore the pain. The only way you can hold a microphone over your head is wanting to do it. Not wanting to screw up. You don’t want to make a shadow. You want to do a good job. And it cost a lot of money to roll that camera again. Every time they have to retake a shot, it’s anywhere from a couple thousand dollars to tens of thousands. When shooting exteriors, the pole becomes even heavier with the added weight of the windscreen over the microphone.

### Cable Man

When you join the a production crew, the first job in sound is as a cable man-seeing that the equipment is maintained and looking after the needs of the mixer and boom man, which can be anything from “Get me a glass of water, boy,” to “Put me in the shade.” Today the title is “assistant sound technician.” And they make my day easier by working a second mic on tough shots. That’s standard procedure, to take a low-man-on-the-totem pole job first and observe as long as you can. Once you’ve learned enough doing cable man work, then you make a move yourself. Hopefully you don’t have to wait too long for some guy to say “I like you, Forrest. Why don’t you be my next boom man?”

Pecking Order

There are cliques, there’s a pecking order that exists from the cameraman all the way down to crafts services man. I was very naïve about production work, so I got there expecting everyone there to pick up a line, share the work. It doesn’t work that way. I can’t touch a light, he can’t touch my microphone, I can’t touch his camera. It’s very segregated and very competitive. It’s any arm, and the general is the director. And the second in command is the director of photography. That’s whom your allegiance is to-the DP.

### The Job

The boom operator’s responsibility is to be on the set at all times, never leave the set from the morning’s “call time.” The most important thing you can do is get a cup of coffee, say “hi” to people, walk on the set and listen to the director. He’s the guy to follow around, you stay in his back pocket, and you walk with him through the set. The first shot is always the master. He’ll line up his shot, and you’ve got to listening to him. And while you’re listening to him, the wheels in your brain are turning and your thinking, Okay, if the actors going to be over there, I’ve got to put a microphone here. You decide, on the basis of how the director is blocking and what he’s saying, where you’re going to plant your mics or how you’re going to swing the boom around the set.

My recommendation is to develop a rapport with the director. If you don’t have that, then you have to go through that god-awful chain-of-command crap- go to the assistant director, who goes to the director, who goes back to the assistant director, who goes back to you. And by the time it gets to you, third or fourth person, you may not get the answer you need anyway. If there is a question regarding sound, the man to go to is the director because he has the answers.

The only time a director will initiate getting into the nuts and bolts of sound is when he comes up to you personally and says, “Forrest, we’ve got a long shot here, and you’re going to have to rig the actors.” He knows way in advance what his shot design is, and rather than going through the rigmarole of rehearsing the whole scene and waiting till the last minute for us to find out that we have to put body mic on the actor, he’ll just tell us-which is really helpful as far as knowing what equipment to break out.

You have to observe the director, try to read his mind and know exactly what he wants to do. And once he's said his piece, not only do you have to know where to put your mics, you have to know where the camera's going to be- and if the director of photography uses a certain lens, you have to know how that effects the scope of the shot. You have to know lighting because how the DP lights the set will affect where you put your mics. There is also a grip and electrical department. Without their help you can have a miserable time. A good boom operator has to understand the work required of the grips and electricians. If they are confident, you know what you're doing and the day goes smoother.

#### Problems

The most obvious problem is when the mic dips into frame. That's what the average viewer is going to see and what gets blamed on the boom operator. It is the camera operator's responsibility to tell you when that happens. He's looking through the lens, but you have to be aware of when the boom comes into frame or even the shadow of the boom. If your subjects close, you'll have fewer problems, but if it's backed off and wide you may have the Coliseum to worry about. In confined spaces, low ceilings and a wide shot force you to keep your microphone up close to the ceiling and you might have to make a lot of swings with it. There's always a plan A, plan B and plan C. If plan A doesn't work, where you're using a good strong recording microphone near the actors mouth, you go to plan B, were you plant a microphone somewhere. If you can't plant one because either the camera will see it or when or it won't be in an optimum position to hear the dialogue, then you go to plan C with radio mics- which the actors don't like because you have to hide them on the actor's body, and if the actor has sheer clothing, that's a problem, too. You have to be ready to make these changes at a moment's notice, as discreetly as possible. Any element-climatic or environment-is a problem with sound. The biggest problem in sound is a background noise. Nature we can contend with-rain, birds-that's just there. People talking, planes overhead are all headaches. In a western you don't want to hear a freeway nearby or a jet going over.

#### Windbags and Mics

There's no such thing as an exterior or interior mic. The difference is in the protection devices "zeppelins" or "windbags", made of certain materials that keep the wind from hitting it. These microphones are very wind-sensitive, so you have to protect them at all times, which makes the microphone heavier.

A shotgun microphone has a narrow field, and it can pick up someone's dialogue father away. So its used most often with exteriors-say, a western. You're filming Mt. Whitney; they want to hear James Arness a hundred

feet away.

A shorter-field microphone has a wider span and doesn't pick up the farthest things. It's a close proximity mic, and it keeps a cleaner sound.

Every microphone has a specific job. Whatever the director determines the shot is going to be determined the kind of microphone you're going to use.

The standard industry microphone is the directional microphone. It either has a narrow, straight-ahead recording ability span or semi-wide field.

Hand-held mics like entertainers use have a wide recording ability. It has to be close proximity. If you pull away the mic away from your body, it's of little use.

The kind we put on the bodies-the little peanut microphones-are omnidirectional. They have a flat recording capability, recording whatever's closest to it, usually the mouth. It will pick up someone else's voice close by, but not as strong.

#### Signal to Noise

To hear more clearly everything that's being recorded, a boom operator should wear a headset. The microphone then becomes an extension of your ears. The human ear is an extension of your brain. I can be in noisy room, a party, let's say, and be talking to you. All I'm hearing is your voice, even though all around me there are people talking; because my brain only wants to hear you. A microphone doesn't have that capability. A microphone hears everything. It can't separate sound. If you were out in the middle of a quite meadow and you were recording, you could turn the knob up forever until you could hear the grass grow. But the sound of an airplane will also be exaggerated proportionately.

So if you want a party sound, what you do is tell everybody behind your actors to pantomime. Then later you lay over a wild track of the extra murmurings. That way you can play with the dialogue and keep the background sound for the dubbing.

Background noise is what you want to control. The textbook usage is "signal to noise." The signal is what you record, the noise it what you want to eliminate. The mixer and I are responsible for the background noise to the extent of mentioning it to the director. If we hear something in the background and the director didn't catch it, we say, "You may not like that cut because you had a car go by in the background." They may not have heard it. From then on the ball is in his court. He may do another take or say, "We don't have time, let's keep going."

#### Trends

The film industry, as far as keeping up with sophistication in sound, is way behind. The government has marvelous sophistication in sound. The CIA has mics you'd never see-plug 'em in your nose or teeth. I think there's some

great motivation to refined sound. It would simplify a lot of things, but I don't want to stab myself in the back and agree to it right now! I'd love to see some major monies spent sophisticating all the equipment in the industry. Not necessarily eliminating manpower because I think for every machine you invent there's got to be someone to push a button on it. It would take some of the glamour out of it. But there are times I would kill for sophistication on a small narrow set when I have to swing this thing around and be yelled at for half an hour by a belligerent director. How good it sounds is the bottom line. The microphones we use today are what you want for optimum-quality sound. Radio mics put on an actor are a great tool, but you have inherent problems with them all the time-clothing noise, where you put the damn thing without being seen, and then you have radio frequencies. Sophisticated equipment just does not exist right now, and I don't see it happening for maybe another decade-as far as possibly eliminating my job! Oil magnates and real estate entrepreneurs buy their way into our business and call themselves filmmakers. What in the hell do they know about the nuts and bolts of making a picture? The old studio bosses-Goldwyn, Cohn, and Warner-they may have been grouchy old farts, but at least they knew what had to be done. Today young corporate executives from some parent company will make across-the-board cuts in manpower and wages without a thought about why that job exists. If an executive were to ask my advice, I'd tell him or her to forget the three-piece suit and expensive lunches spend

time instead on a production from start to finish. Watch how it's done Recognize what the needs are and where the wastage exist. Films aren't made in air-conditioned office-deals are.

### Aspirations

The realities of this industry hit me hard the first year working in it. People were either rude or nice. The rude ones set me straight. They told me to make up my mind; go for one thing and fast. I didn't choose sound as a career, it sort of choose me. But fate has a way of being blessing. My first location assignment as a cable man was on a western where the electricians would grumble jealously while I was wrapping spaghetti-thin cable and they were wrapping cable think as pythons in one hundred degree weather in Kanab, Utah.

There is a drawback in this industry. Once you pick a certain career or seem to pick one, your labeled as such. Years ago it behooved the studio to keep everybody in caste system. Below the line and above the line were separate, and never twain shall meet. Actors didn't hobnob with techs, unless you were a Clark Gable who went fishing with a grip. They're merging together more now, although not as much as I'd like. Young guys or girls getting out of film school may not get that first crack at selling their scripts or making films. They just want to get into the business. That's what happened to me. If your creative and love movies, it's only natural that you would want to make your own. Whether it's a little student films or home movies, major studio productions or independent nonunion features, the desire is there. Someday soon, hopefully, I'll be putting my own ideas on film.

### Satisfaction

I think it was William Goldman who said, "Direction is hard work, but it's not hard to work like Van Gogh painting, it's hard work like coal mining." Operating the boom is hard work, but I take pride in hard work. And I like the responsibility, the learning and the rapport you develop because of that responsibility. I get an immense sense of pride when I see something on the screen and I know that all the work I put into it was on that screen, not looped-which means replaced by the actor a later date-but the original track is on there. And you know you had to fight, scream, kick, and bite to get it on there. Not screen credit, none of that. But the job is done and done right and appreciated by the director or the producer. Knowing that my work is physically on the screen and you feel it there throughout the whole movie.

Postscripts: Since giving this interview, Forrest acquired the rights to a novel, Song of the Wild, and adapted it as a screenplay. 



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# BUILDING REALITY

WITH WEXLER VIDEO

PART II

*By Josh Rizzo and Jennifer Toney*

At the heart of every reality production, there are many experts and professionals eager to deliver a new hit show. Many of them are part of the post production editing team of trained and talented professionals. Solid post production planning, the latest in technology, along with the best support available will help insure a successful show every time.

As footage is submitted to the post production department the editing team's skills are put to work immediately with: preparation, craft editing, then picture and sound conform. In the last issue of *The Coffey Files* we discussed the preparation stage. In this issue we are featuring the craft editing phase of post production, and the support provided by Wexler. Our post department is well

known for its ever-growing Avid inventory that vastly supports network and cable reality shows. In addition to our large inventory, Wexler's post department provides exceptional technical support working directly with the editing team. Close collaboration helps insure the technology is performing to its full capabilities and deadlines for delivery are met.

## **Step 1: Workflow**

Post production begins in pre-production. Decisions made in the field have a tremendous impact on the technology used to store, organize and edit the raw footage. The first step for every show is to meet with the production team and talk through each step of the process to ensure every-

one is on the same page as to the technology that will be used and how it all works together. Questions regarding camera format, sound acquisition, and delivery resolution all need to be answered beforehand to ensure the right solution can be provided.

### **Step 2: Site Survey**

Not every production has a central office that houses all of the equipment necessary to produce show after show, year after year. Instead, production companies lease office space for the duration necessary to complete the work. Part of the preparation for every show is what is known as a “site survey”. As the name suggests, a post production engineer travels to a proposed location to survey the power, air conditioning and infrastructure to ensure all areas can meet the greater than usual demands of what will soon be a full service post production facility.

### **Step 3: Build**

Combining the decisions made from the workflow consultation along with the results of the site survey, every edit system is custom built from the ground up at Wexler’s 14,000 square-foot warehouse in Burbank. Each system type is illustrated as a CAD elevation along with the required configuration recipe of hardware and software decided upon by the lead engineer. The building phase is completed with a thorough testing of every component working as a whole.

### **Step 4: Installation**

After testing, the system is broken down and delivered to the client location. The team of field technicians then installs a communications infrastructure such as fiber optics or Ethernet cables connecting each of the edit bays to the shared storage system such as Avid Unity or Apple XSan. All systems are then rebuilt, retested and ready for action.

### **Step 5: The Show**

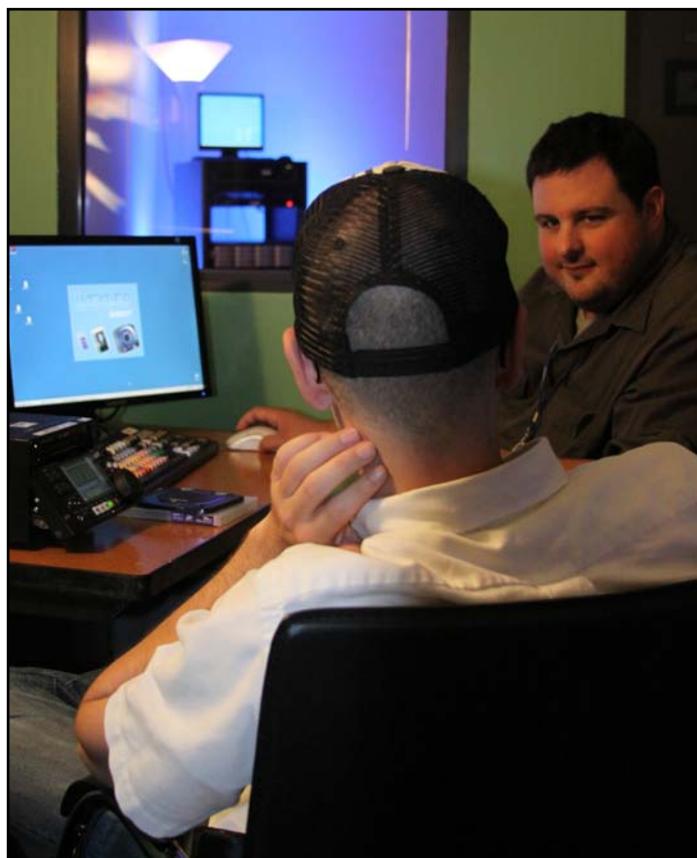
During, the ingest phase thousands of hours of footage acquired in real time are prepared for use on the shared storage server. The term “ingest” has become prevalent in more and more entertainment industry discussions not revolving around food. The term ingest can be loosely defined as the process of moving audio and video content from a source medium such as disk or tape to a destination medium such as a server. The previous terminology of “capture” and “digitize” are basically the same but with an understanding that the bits of data that make up the content are being reorganized and reformatted before that data hits the server. Ingest also lends itself to being a faster than real time process, more along the lines of importing a Quick-Time in Final Cut or linking to AMA in Media Composer.

Either way, the media ingested is of a lesser quality than the original camera master to allow the sheer volume of media to be shared across the editing network.

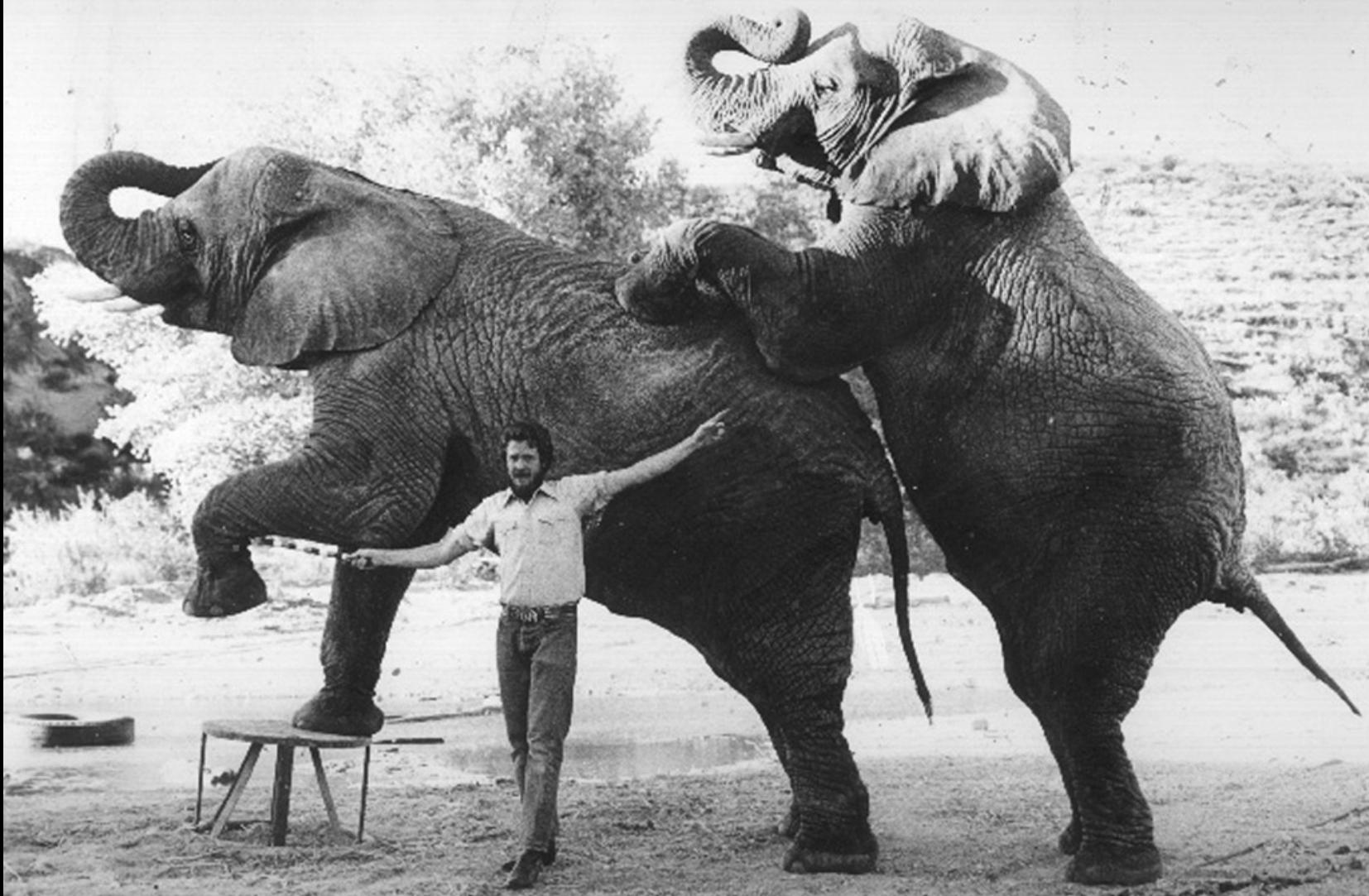
Once the assistant editors have ingested the media into the system, they prepare the media for use by story editors, producers and loggers as well as group and stack the clips for multi-cam editing. The loggers make notes of all the video, the story editors create basic groupings of story topics, and producers view the overall progress. This progression is all done in an effort to trim the fat of the irrelevant content leaving the meaty story goodness.

Next, the craft editors take the streamlined content and sculpt it in to a heartwarming moment of joy on ABC’s Extreme Makeover: Home Edition or a tense elimination on The Bachelor. Though this sounds simple enough, editors make the subjective and subtle judgments that move audiences around the world to laugh, cry, or gain inspiration to make a difference in their lives.

Nearing the end of the process, the final locked cut is conformed to its full quality master and color corrected on a finishing system provided by one of Wexler Video’s sister companies Orbit or Postworks. After completed, the master tapes are delivered to the network, ready for air!



*Josh Rizzo discussing Faster Real Time Ingest*



## "AND WHAT... GIVE UP SHOW BUSINESS??"

*By Tim Cooney*

As I write this the business is very slow again. I happened to wander in to Coffey Sound to talk to John. I wanted to hear a story, tell a story, hear about who's doing what and wondering at the same time how so and so got the job. All these years later it's still a mystery to me as to who gets what job and why. John started to laugh at a story I was telling him and convinced me to write some for his magazine.

He said to write about how I started and some of the shows I mixed. So here we go. A special psycho version of this is your life. Actually when I tell you how it started, you will think I am making it up. But I'm not. This could only happen in Hollywood...

To say my parents were conservative would be like saying Steven Segal could use acting lessons. My father was an attorney and politician and my mother was the head clerk of the draft board. It was the 60s. They were drafting everybody. I was a musician, had long hair and really did

not fit in; so I ran away from home, and everything I knew. My parents (and most of the population of California) weren't exactly sorry to see me go. I was almost 18 when I joined the circus, yes that's right, the circus. Boy, were my parents proud when I graduated from the Ringling Bros Barnum and Bailey Clown College. First I was a clown, then I learned to train elephants and big cats. My mother's therapy lasted only 5 years and my father started drinking heavily, but they actually started talking to me again, about a year later. Now, all the jokes that go with me being in the circus- clowns, animals etc., are too easy, so I won't go there. Just pause a minute and we will wait before you read on.... okay, by now you are thinking - "What the hell has this got to do with the film business? ". Well here it comes.... this is how I got into the business. Back in 1976 I was hired by Tippi Hedron to train elephants for a movie she and her husband Noel were going to make, called *Roar*. I was doing the elephant show at the St. Louis Zoo



*Tim Cooney at his cart.*

at the time, but was ready to move back to California. Not only was it my first movie, it was also the first for many guys that went on to have successful careers. It was the first American film for Mr. Warmth, DP and director Jan DeBont and Melanie Griffith's second or third film. Sound mixer, Courtney Goodin, had done other films, but he and many of the guys were doing this one to get into the union. The DP, Alan Caso, was an operator on this film. My first day on that set, I guarantee you was not like anybody else's first day in the business.

The film set and compound were in Soledad Canyon, in Acton. I was finished working with the elephants around 9 am. The other animal handlers who took care of the 100+ big cats were also done with their chores. These cats had never been trained, but I was told they were all hand raised. Gee, that made me feel better. 300 lb cats that are already used to the people they want to eat, like any lion walking around with gazelles in Africa. These big cats were as wild as my Aunt Nancy when the fleet came to shore, but that's a story for a different magazine. Anyway an announcement was made for all animal people to report to the set. Being called an animal person is the same as being called sound department and I know how we all love being known as our craft, instead of our names.

I was excited to be on my first film set, so I walked up and Noel said "stand right there". All the animal handlers and most of the crew got in two lines facing each other about 5 feet apart. For the life of me, I could not figure out what we were doing, so I thought it must be some kind of film thing. The 2 lines of people went from the animal compound to this set house that they had built on the edge of a lake. Courtney Goodin, who was next to me in line, was the sound mixer on the show. He ended up being a good friend. I turned and asked him what was going on. Before he could answer, there was a sound kind of like a combination of panic and thunder then I saw forty of these untrained, basically wild, lions,

tigers, cougars and leopards running down the human chute we had created. This crazy man, Noel, was chasing them with a large piece of plywood yelling and screaming, while shaking a 4x8 piece of plywood as he ran after them. My first thought was to run without looking like a gazelle. Then I hear Noel yelling that if we try to run, they will get you. My second thought was just because I worked at the St. Louis Zoo, I am not Marlin Perkins, and how the hell did I end up on wild kingdom? As the cats, many up to 500 lbs would walk by, they would bump into you and then look at you like you were a soup bone. I asked Courtney if this was common and do you guys do this sort of thing a lot? He looked at me and said "you are not going to like the answer". This turned out to be one of the saner things they did on that film and to this day I am truly surprised no one died. Over the course of a year I watched several people get bit badly and sent to the hospital. Noel got bit more than anybody else, and HE WAS IN CHARGE!! I helped pull a tiger off of Jan DeBont, who ended up having 500 stitches in his head. Why didn't I quit? It's like the old joke about the guy who cleans up after the elephant, "What? And give up show business?". During this film Courtney's boom operator, Lawrence Abrams, did leave the film. Gee I don't know why?.. Maybe It was because he was dodging big cats on the rafters above him, railings next to him and walking over his feet as he tried to boom a scene. I had been hanging with Courtney and basically he took me under his wing and taught me booming. I had helped engineer records and I had played on and knew something about sound. Having trained animals, Courtney figured I would fit right in. I was used to being around exotic animals that could kill you or make you walk and talk funny for the rest of your life, but they were trained. These filmmakers really had nerve to put up with this. There were only three real animal trainers on this film. Myself and 2 other guys. The rest were people hired off the street to throw meat and be human shields.

There was a flood and a major fire that swept through the compound during the course of the film. Several people including Courtney were stuck on what became a small island and had to be winched across a raging river in a harness, in the dark, as things like houses, cars, propane tanks and kem editing machines were whizzing by them in the water. A wall of water mowed down all the cages. With no electricity and in the pitch black all you could see all around you were pairs of green eyes from the 100 or so big cats staring at you. It took almost two days to catch all the cats that were running loose everywhere. Then there was a fire that swept through the canyon and I had to walk the very nervous elephants down the road, with a police escort, to safety. Here I thought filmmaking was going to be exciting, little did I know. All of this was written about in Tippi's book

“The Cats of Shambala”.

At this point in my life I had to make a couple of decisions. The first one was about having a child. I got a pretty good kid and made a second decision. Give up animal training and go into sound. So I went to the Universal lot and drove them crazy. I had only done one show. Needless to say I was always watching the cats rather than the actors. There was a woman we called the black widow then. She did all the hiring at Universal’s Sound dept. Janet ended up liking me, which was important back then. She couldn’t hire me at first because I wasn’t in the union. I was only short a couple of days and I was very persistent. She eventually had me loading dummies and working in the shop until I got the rest of my days. At the same time I was spending every day on a Fisher boom learning how to use it. I would go down to the stages and learn about lenses and lighting. I finally got my days in and she was assigning me to shows as a boom man. That’s the way it was done in those days. You did not have to look for work. It was assigned to you by a studio. At Universal we had to park way in the back, off of Barham Boulevard, and take a shuttle to the department you worked in. I would get off at the corner and walk to the sound department to punch my time card. It did not matter what you did, everybody punched a time card. I ended up booming such shows as *Buck Rogers*, *Battle Star Galactica*, *The Incredible Hulk Night Rider*, *The Incredible Shrinking Woman*, *Quincy* and others I am trying to forget.

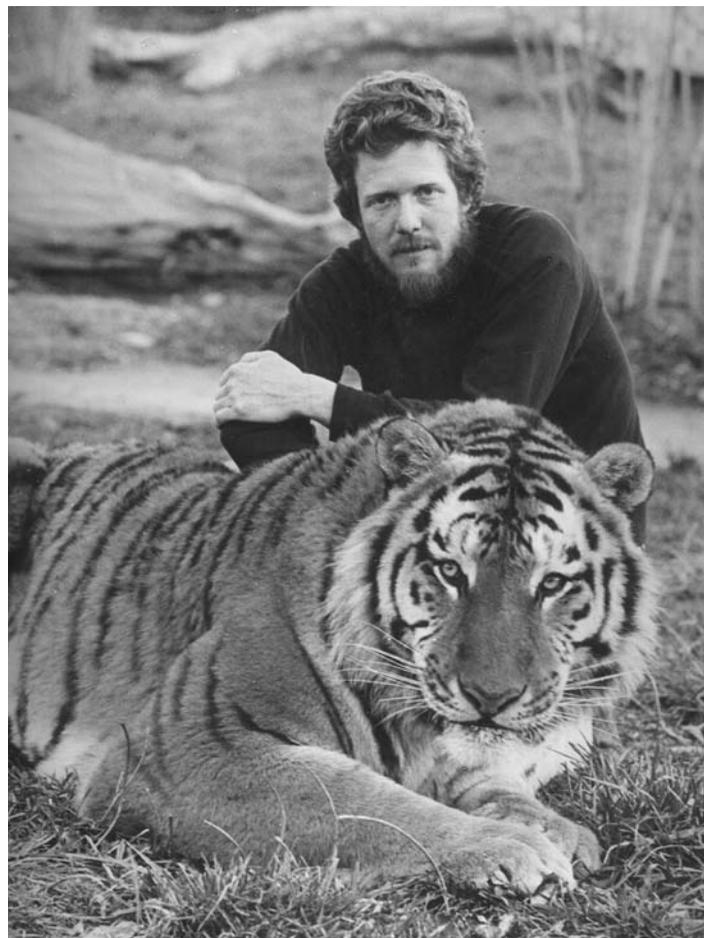
Back in the 70s, you never worked past midnight. You got night premium after eight pm and if you did work past midnight, it was double whatever your rate was at the time. It was just too expensive to work late and we actually could spend time at home with our families. We obviously have given up too much and in return it seems all we got was the right to keep working. In our business we have to eat catered food more than home cooked meals and for the most part they are painfully adequate. Meal penalties were rare and back in the 70s and 80s you would walk out of the stage around 7pm and hear the stripper steaks hit the grill all over the lot. At Universal, it was always Michelson’s catering.

Universal would never move you up to mix. If you were a good boom man you stayed a boom man because they would just plug you in to different shows and mixers. So I had to leave the lot and start to hustle to mix. I mixed a couple of little kill-the-coed films, then I got lucky and caught a pilot. Back then, you would start as a mixer most of the time on TV. Today with all the reality shows I am glad I have been in feature world. This pilot was called *Hot Pursuit* and was shot in Louisiana back before tax incentives and we shot it right in the middle of Mardi Gras. Before we were done shooting we were told it was already picked up for 12 episodes. We finished

the pilot and were told everybody would be asked to do the series, but another mixer snaked it by lowering his gear rate. That show was canceled and in the meantime, I worked on his pilot and stayed on it for almost five years. It was *Murder She Wrote*. Moral of the story, don’t steal another guy’s show and never turn down a one-day call.

Then I got my big break. Let me say this I will always be grateful to Don Bassman. Don was a great dubbing mixer and ran the sound department at Twentieth Century Fox. Don won the Oscar as a production mixer for *Patton*. Don’s son Todd Bassman is also one of the best boom persons in this business that I have had the pleasure to work with. I have been very lucky as a mixer to have had some of the best boom men work with me. Had it not been for Don, Joel Silver would have never hired me. Don always said I can get you the job but I can’t keep it for you. Joel hired me to do *Ford Fairlane* and then *Die Hard II*. That was the defining moment in my career, when I knew I could finally get the bigger pictures. When we mix sound we always try to get the best possible sound regardless of the show. If you mix the sound on a successful show, they think you are good and know what your doing. Maybe they just want to be associated with success.

*Die Hard II* was the party from hell. Just writing it on paper sends chills up my spine. It sends chills





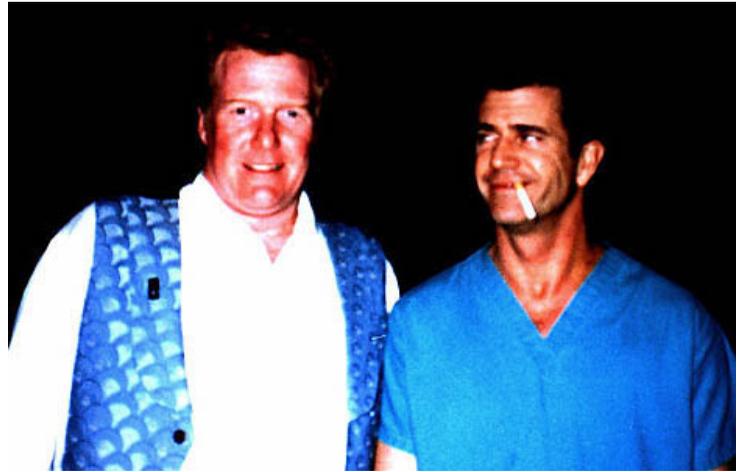
because to this day, this picture remains the toughest picture (and also the coldest) I have done and I have had some doozies, including *Cliffhanger*, *Deep Blue*, *Sea Demolition Man* and *We Were Soldiers*. All were difficult for different reasons, but *Die Hard II* is in a twisted place all of its own. First of all, pause here and think of any problem you have ever had on any film. On *Die Hard II*, we had them all. Anything that can go wrong on a film did and sometimes in Biblical proportions. I don't even know where to start. I can tell you this. This film had the most people ever hired for a film. At the end of the film the UPM told me he ended up with over 500 deal memos, just for the teamsters. First off, we were chasing snow in the warmest winter ever recorded in the history of the United States. This show also holds my personal record for the most hours worked in a week - 123 hours. We had to find a place where there was a runway covered in snow, so that we could land a 747. One of the places we went was a place called Moses Lake in the state of Washington. The best pickup line at all the bars in Moses Lake is "nice tooth". The day before we left LA it was 25 degrees and snowing in Moses Lake. When we landed the sun was shining and it was 70 degrees and no snow. So we can't shoot that. They tried fake snow, but the plastic didn't work out. So, we went back to the Moses Lake Inn and

Tire Center and at about 7am I wander down to the lobby and the 2nd AD is there saying "come on lets go". Apparently someone forgot to call me. The production is sending everybody back to LA and Joel Silver wanted all the department heads on a plane in an hour. So, I rush upstairs to throw my stuff in a suitcase and then called my boom man and cable guy. The good news is we are going home, the bad news is they have to gather all the walkies on the show. Back then it was the sound department's responsibility to handle the walkies. On that show we had over 500 and it took them 10 hours to find them all. While my guys are in walkie-talkie hell, with no sleep, I am headed to the Moses Lake Airport Hair Care and Jiffy Mart. It felt like the last plane out of Saigon. Little did we know that would be the one of easiest days on the show.

While the company was on the road they had moved refrigeration units on the stage because they wanted to see Bruce's breath on film. It was 25 degrees on stage and 90 plus outside on the Fox lot. Well there wasn't enough humidity in the air so you could not see any breath from anybody. All they did was make it an uncomfortable place to work. We used the ever-popular Sennheiser 416 and 816 mics for the dialog on the stage. Joel comes in one morning and says he found an airport in the snow where we could land a 747. The next day we are on our way to Alpena Michigan, where moss grows on the north side of people. To this day it is the coldest place I have ever been. Oh I forgot to mention, we had over two months of solid nights and in Michigan when it was 35 below, all night long. Cameras and nagras froze even with heaters blowing on them. We are shooting one of the final scenes where the 747 rolls up after landing. The doors open Bonnie Bedelia walks out of the plane door as people are sliding down the emergency chute. She sees Bruce at the bottom of the ramp, smiles and slides down the chute into his arms. That's what was supposed to happen. Here's the way it really went. We are on at least our 6th meal penalty it is 3 in the morning it has warmed up to a balmy 34 degrees and instead of snow it is raining. Because of the rain, the paint on the 747 is running off of the jet. They had painted the plane with water base paint. Joel has got one standby painter on an easy lift trying to paint a 747 and get the paint back on. The rain is winning. Terry Miller, the first AD, tells Joel we should just break for lunch and hope the rain stops. Joel who has been known to raise his voice on occasion says no one on this entire film is ever going to eat again and just roll the #%\*! cameras. There were six cameras. The cameras were rolling, the 747 comes taxiing into its spot the rain had stopped kind of, the back door opens. The emergency chute unfolds and extras start sliding down the chute. The front door opens and all we heard was a pop. The emergency chute instead of unfolding came unattached from the plane and went shooting across the runway in a big square package. Terry Miller turns looks at Joel picks

up his walkie and says “that’s lunch”. If you ever see the last scene of the film, you can see the words, Hawaiian Air, coming through at the top of the plane. I could write a book just about that one feature.

Well I better wrap it up, because I don’t want to use up all the space in John’s magazine. Next time I will stick to just stories, now that you know about my unusual way into the film business. I have some great ones about *Demolition Man*, *Cliffhanger* and many others. Like so many of you out there, I have to find a job on a film or series. I will probably call some of my friends—some of the people I know (now that they are paroled) and see if they can throw an old dog a bone, so I can reach retirement.



*Tim with Mel Gibson*

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## *What I Learned in Reality TV - Part II*

*by Richard Ragon*

Where's part I you may ask? Well.. The original "What I learned in Reality TV" was posted on the Jeff Wexler's 'jwsound.com' board, and it was more of a run down list of what NOT to do on a reality TV show. Or should I say, a virtual shopping list of how the new and inexperienced producers made lots of mistakes, how we overcame them, and the stark realities of working on a niche of a niche market. Out of all the people that show up in the film industry every year, few actually choose sound as their chosen profession in the film industry, but even fewer of those people in our field work in the reality TV show industry. You might even say that as far as sound is concerned, it's a well kept secret within our industry.

Fresh off the heels of my first tragic (low budget) reality TV show, following 12 teenagers around for weeks on end, I received a phone call from a producer in April of 2009, asking me if I could handle wiring up 22 people? I was feeling pretty confident, and thinking this must be some kind of 1 day round table discussion or something, I said, "sure, I can do that". There's nothing like going outside of your comfort zone a bit once in a while.

I met with the producer at a very remote location just North of Santa Barbara for a meeting to discuss his needs, and to get a better understanding of what he was looking for. Our participants (as the producers called them) are going to attend a sort of "group" therapy sessions during their week stay on a remote working Ranch. Basically in a nut shell, he described a worse case scenario and nightmare for RF mics known to man. 22 non-actor participants roving around a 50+ acre ranch with 7 buildings

to cover. 8 HD cameras would be capturing the action and hidden mics with small body transmitters were required.. And to make it even worse, the wired participants during the sessions, would be jumping, hitting objects (and each other), lying on the floor, dog piling up, screaming, crying, and the all mighty killer of lavs.. 'the hug'. At some point the producer did notice my face as I'm sure it went from 'kewl' too.. 'holly \$#!&, how am I going to pull this one off'. This was a project on a very very large scale deal.

One thing that worked well to my advantage was that even though I was a little 'green' on this, I was still up for the challenge. I had 6 weeks to figure out if I could pull this one off, and believe me, there were a few times where I might have re-thought about my roll here. When you're confronted with a problem, you simple break it down into smaller manageable pieces, then solve each piece and move onward. First stop, figuring out if this whole thing was even technically possible.. NAB was around the corner, and a trip to VEGAS was in order to talk directly with the vendors to figure out how it's done. My NAB/Vegas trip turned out to be a success, and shortly after I had my technical game plan in place.

I solved the equipment gear with a mix of self owned gear, and rentals. I was able to secure 12 Lectrosonic SMA , and 12 Lectrosonic MM400a transmitters all outfitted with Countrymen B6 lavs mics, 4 of which the producer had hidden inside custom jewelry created just for the show by Christina Meyer. I used the PSC mutlimax RF system and 4 Lectrosonics Venue systems feeding into a

Yamaha DM2000vs mixer. I then ran 3 ADAT option cards with TOSlink going to a MOTU2408mk3 rack that went into a MacPro running 24 ISO track recording at once on Metacoder software. For back up just in case, I had 3 Sound Device 788T's connected from the mixer via D-Sub snakes. This was one heck of a monster system.

The cameras (Sony EX-3s) were outfitted with Tri-level Sync boxes, and lightweight RODE NT2 mics which actually did well as a scratch/backup mics recorded at the camera level. These cameras also had 35mm lens adapters on them, and outfitted with microwave HD-SDI transmitters (running at 1.5Ghz, thank gaud..) Plus, weights on them to counter balance. At times I almost felt sorry for the cameramen, and they had to take shifts because those darn things weighed so much..

A couple of things I saw right off the bat during the first meets with the producer at the Ranch that worked in my favor. First, a scan with the 411's of nearly every single block I had, scanned with flat lines..

Awesome, not a single other competing frequencies, even cell phones had a lot of dead spots. Kewl! Next was the lack of space for any staging equipment. It became obvious that I had to make space for our sound setup. Right in the middle of the ranch was a small parking/drive area. Problem solved, I could move in a Trailer and it can serve as a way to protect the gear from the elements, host a staging area for the sound team, and be the launching pad for all the antenna rooftop wires we were going to have to run. I made a few calls and had a 27ft Toy Hauler Trailer dropped right on the Ranch. Problems solved.

As with all large jobs, in order for me to pull this off, I would have to assemble a crack team.. The hard part, during the filming, was going to be getting everyone wired each morning, which takes professionals to do, but after that it's simply a matter of monitoring and changing batteries or dealing with the occasional small problems. Since filming could be going on between 7am till 2am, we also had to attack this within shifts too. So, my first order of business as the newly appointed sound supervisor was to find me another A1 Mixer. I called Thomas Curley for the position, and he accepted. Thomas is more than qualified, and I was very fortunate to have him on a gig like this. For my A2's I called on my familiar team Lamont Hall, and Mike O'Heney. The dream team was coming together, and at the end of May 2009, we all came together the day before filming to put this all in motion. Months of planning and cross my fingers.

The gig started out with a bang, as participants arrived, we got them filed into the sound areas, wired them up and tested it out. We were down to the wire on getting the RF system running correctly, let me tell you. We had a fair amount of problems from the get go, but we knocked them down as best we could. I had planned for 2 extra

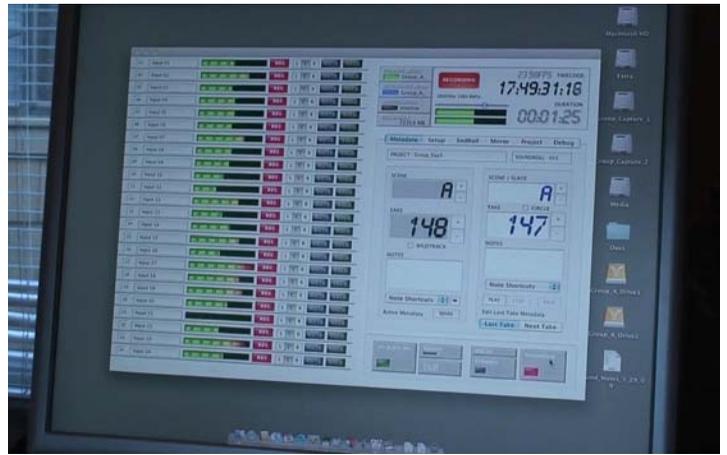
mics/channels, but we also had a few mics fail and 2 transmitters right off the bat too.

The producer was adamant about NOT seeing the mics, and it's NOT because of the cameras, it's because the participants are NOT actors, and we are trying to film something that almost CAN'T be filmed. By the participants seeing the mics, the producers were worried about taking the participants minds out of the show, and thus would have drastic implementations on the outcome of the show. Now I thought, or was the understanding of these participants were ok during non conference hours, but we needed to hide the mics during the conference parts. However, once the producer saw everyone with mics, he wiggled out... causing me to just say.. "f\$\*@ it, well do it live"... hide all the mics regardless of quality then'. And, unfortunately, the main host of the show, had mic problems in which we could NOT fix once we got started, and I had to endure hours of scratchy sound from her clothes. Once the conference starts, there's no going back for 3-4 long hours. Getting people pulled out of the sessions turned out to be a very very difficult task... We had to get permission from the producers to have someone pulled out, plus someone would be crying their eyes out, and you walk up and say, "Can I change your battery?". This was a very small line that the sound crew had to walk.. This is where your 'professional' A2's come in.. My A2s Mike and Lamont were fantastic, and the participants raved about their great demeanor in sensitive times. These were NON actors, and we had to invade their personal space both physically and emotionally.

Unfortunately, the first day didn't go off without trouble, Due to an error on my part, the mic on the host simply sucked and got me the mother of all "Christian Bale" rants from the producer as he handed my ass to me! The kind of moment where you just want to go back to your bed, cry, and contemplate your career choices. However, like all things in life, when you fall off the saddle, sometimes you just have to get right back on again. The next day, I came up with several solutions to attack the problems. 1) Double mics, where the host wears 2



*Anna Gauthier, Mike O'Heney, Lamont Hall,  
Richard Ragon and Tom Curley*



transmitters. 2) I wired up a mic to the host's glasses, hid behind the hair in front of her left ear. This one survives hugs too. 3) Bra mic...yep, no modesty here. 4) we also went over the host choice of clothes, and I asked "how will you be wearing these cloths, are you taking your sweater on/off at some point", ect.. noting the fabrics.

The other problems were RF issues. We needed to have the wireless mics work all over the ranch.. or as best we could! We had 7 main antennas around the ranch covering 8 buildings over 50 acres, but we were still trying to solve small signal troubles all over.. The vast majority of it was working though out and our main focus was the conference area.

While in the conference, people would talk very quiet, then next thing you know, they are screaming and hitting things!! Gain knob adjustments came into more use than the fader knobs sometimes. And just to make it ever worse, there were times when all 24 mics are laying on the ground or huddled in a huge dog pile. Some of the mics lost transmitting all together, oh boy.

Then comes the simple fact, that were recording

24 ISO tracks at once for 21 hours a day!! With backups! Within the week, we had over 6 gigs of sound files. But, believe it or not.. most all of it, we got good clean sound. A real credit to those countrymen B6s and stickeydots. We even started telling the camera crew over the radio where the good stuff is happening to send them around the ranch to go get it.

Did I say I have the highest respect for my A2's Mike and Lamont? Good gaud, when a battery ran low.. they had 50 acres to search for them? We often joked on the set about how Zaxcom can maybe put GPS systems in the next gen transmitters? As a side note, we used over one thousand dollars of Lithium AA batteries.

Overall it was a great gig, but I might have a few grey hairs now. The management team was pleased from the 2nd day onward. Which is my main goal in life. We pulled it off, got to play with a whole lot of big toys, and perhaps be part of something 'crazy' that you might see on TV one day here. If there's a season 2, I'll be ready, willing, and more able.





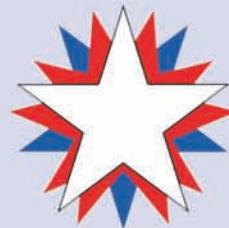
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For All Your HD Audio Needs.



## Zoom R16 - Recorder | Interface | Controller



The Zoom R-16, 16 track recorder is a packed to the brim with features. The R-16 is a full reorder, interface, and control service for the recordist on the go. The unit operates on six AA batteries or on the included AC adapter; it records to a SD memory card up to 32GB of storage, giving you over 4 days of record time! The unit also lets you back up your session or recorded material to a USB thumb drive. The inputs include 8 XLR (2 with phantom power), 8 Balanced 1/4" (TRS), and 1 Hi-Z 1/4" giving you 8 simultaneous record tracks and 16 tracks of playback. The tracks are recorded pre-fader and the master fader can be recorded for a post fader mix to get all the flexibility needed to get your job done. If you need more than 8, you can connect two

together as a master/slave and have 16 simultaneous record tracks!

The R-16 as an interface and controller is a full portable working gateway to your favorite DAW's. The R-16 even comes with Cubase LE4 for PC or Mac. With 8 in and 2 out or 16 in and 4 out with two units master and slaved, and up to 24 bit/96kHz you can create and capture whatever comes your way. As a Core Audio and HUI protocol device, the unit will map its self to some of your favorite DAW's including Cubase, Logic, Sonar and more. With the built in 100+ effects you can make an original mix and save processes power on your computer buy processing the effects externally.

In addition the R-16 meets the inner musician in us to help us create and get the music laid down. With the Hi-Z input you unleash the built-in guitar and bass amps and effects. Whether you're looking for chorus to thicken up the guitar or a touch of reverb to give your drums that live feel the R-16 has you covered. With a guitar/bass tuner and metro-nome you can make sure that everything is perfectly fine-tuned to make your music be all that it can be. The unit also has on board condensers microphones to capture on fly or to get your ambience or your room reverb or tone.

These just being some of the features on the Zoom R-16 you won't want to pass up checking out the newest, latest and greatest from Zoom. For more information please stop into Coffey Sound and we will show, teach and take care of all your questions and concerns for your next adventure in sound!

## The Location Chatter Stopper



Do you find yourself grinding your teeth because the crew is talking, walking and opening doors or your location set? ....especially when it's the PAs and ADs doing the talking? Well, Coffey Sound has a new product called the "Location Chatter Stopper".

It is designed to be lightweight and easy to throw out on the fly between takes. Just stick it wherever the noise is happening at that moment and you have an instant reminder for the crew to shut up.



The Location Chatter Stopper is operated by remote control. The spinning red light says that sound is rolling. It's the fastest way possible to button down your set. Use as many lights as it takes. There is a version with a bell and a less expensive one without a bell.

The Location Chatter Stopper runs off any 12 volt d/c power via a standard 4 pin XLR, so it can run off battery or A/C power. Please call your freindly Coffey Sound salesperson to request a free demo to your set. You can also check it out online at [www.coffeysound.com](http://www.coffeysound.com)

# Sound Devices 552 Portable Production Mixer



The new Sound Devices 552 is 5 channel mixer with the great feel and sound you've come to expect from other Sound Devices products with some brand new features! To start the 552 has 5 XLR inputs and 5 TA3 direct outputs, which can be assigned pre or post fader. The unit also has a Herosi Camera out and a TA3 mix out for left and right out. AES digital outs are also available on this unit with 2 pairs, on each XLR out giving you 4 channels out to your camera! The last connection to be mentioned is a TA5 out used to link 2 units together to be able to double your inputs and out puts. All 5 inputs and the stereo output have the limiters that we all trust and know. The feel of the unit is the classic Sound Device robust structure, but with a twist. The new 552 is a metalized carbon fiber making the 552 lighter than its little brother

the 442. The unit like its little brother the 442 has a very proficient use of the 4 AA's that the unit runs on. With the mixer being gasket sealed, it add even more durability to the product to last even in the roughest conditions. Last but defiantly not least is the brand new feature of a built in recorder! The 552 has a 5 way toggle switch to record 2 tracks up to 24 bit 96k time code stamped! It can record MP3 or Broadcast WAV file types to a SD and SDHC media type. So in short, Sound Devices has done it again with a high quality mixer with the added feature of a backup recorder, to insure you have the mixed audio you have been working hard to deliver to your client.



# T

## **Take**

The recording that is done between one start and the following stop of a tape recorder.

## **Take Notation**

Writing down the takes of the tune being recorded on a take sheet or on the track log with comments.

## **Take Sheet**

A sheet used to note how many takes were made on each tune with comments.

## **Talkback**

A system that allows the sound mixer to speak into a microphone and be heard through the monitors or headphones of other crew.

## **Telephone Filter**

A filter used to simulate the sound in telephones by removing signals at frequencies below 300Hz and above 3500Hz.

## **Terminal**

- 1) A point of connection between two wires including a device on the end of a wire or cable that allows attachment and the accepting point on a case of the equipment.
- 2) A computer keyboard and monitor that allows access and entry of information into or from a computer.

## **Test Tones**

A recording of several single-frequency tones at the beginning of a tape reel at the magnetic reference level that will be used to record the program.

## **Three To One Rule**

The rule states that the distance between microphones must be at least three times the distance that either microphone is to its sound source.

## **Timbre**

The unique tonality of a voice, musical instrument.

## **Time Code**

SMPTE Time Code (a standardized timing and sync signal specified by the Society of Motion Picture and Television Engineers).

## **Time Code Generator**

A unit that generates SMPTE time code signals.

## **Tone**

Any single-frequency signal or sound.

## **Track**

One audio recording made on a portion of the width of a multitrack tape or with a digital audio workstation.

## **Transducer**

A device which converts energy from one medium to another.

## **Transfer Curve**

A graph of the energy supplied verses the energy stored by a storage medium (often magnetic tape).

## **Transformer**

An electrical device that has two coils that are magnetically coupled.

## **Transient**

The initial high-energy peak at the beginning of a waveform, such as one caused by the percussive action of a pick or hammer hitting the string, etc.

## **Transient Response**

Response to signals whose amplitudes rise very quickly, such as drum beats and waveforms from percussive instruments.

## **Transpose**

The act of changing the musical key of an entire piece of music by an interval.

## **Treble**

high audio frequencies.

## **Tremolo**

An even, repeated change in volume of a musical tone.

## **Trim Control**

A device that reduces the signal strength in an amplifier, often over a restricted range.

## **Truncation**

The editing of a sample playback so that just the desired portion of the sample is played by moving the start and end point of the sample playback.

## Tuned

Regarding a circuit or device, which is most sensitive to a certain frequency.

## Tweeter

A speaker designed to reproduce the higher frequencies only.

# U

## UHF

The UHF (ultrahigh frequency) range of the radio spectrum is the band extending from 300 MHz to 3 GHz.

## UI

User Interface

## ULF

(ultralow frequency) An electromagnetic wave whose frequency is less than 3,000 hertz.

## Ululate

A long, wavering, high-pitched sound resembling the howl of a dog or wolf with a trilling quality.

## Unbalanced Line

a transmission line whose conductors have unequal impedances with respect to ground

## Undersampling

The use of too low a sampling frequency, resulting in aliasing.

## Unicode

A universal system that provides a unique number for every character, regardless of platform, program, or language.

## Unidirectional microphone

An unidirectional microphone is sensitive to sounds from only one direction.

## Unity Gain

Otherwise known as 0db or without amplification or attenuation.

## UPS

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(uninterruptible power supply)

A battery backup that will supply power for a limited time after the main source of power becomes unavailable.

## USB

(Universal Serial Bus) is a plug-and-play interface between a computer and add-on devices, such as media players, keyboards, telephones, digital cameras, scanners, flash drives, joysticks and printers.

## UTP

Unshielded twisted pair. Refers to cables.

## UWB

Ultra Wide Band. A radio technology that can be used at very low energy levels for short-range high-bandwidth communications by using a large portion of the radio spectrum

## GET ABOVE THE NOISE

# juicedLink

### Low-noise PREAMPS

juicedLink low-noise preamps can provide you with an improved signal-to-noise while recording fine audio detail, such as dialogue. Camcorder amps tend to be noisy at high gain. juicedLink low-noise preamps enable you to throttle back the noisy cam amps, and replace it with clean gain from juicedLink.

Passive-type XLR adapters can not provide this benefit.

The product family includes 2 or 4 XLR versions, and 12/48V phantom power options. All models are fully buffered mixers with R/C/L pan control for each input, and leverage the same low-noise preamp architecture. An amplified mic-level signal is provided to your recorder via an included 3.5mm stereo cable.

Add XLR inputs to your recording device: camcorder, DSLR, PC, iPod/iPhone, or portable recorder.

Watch for more new innovative products coming soon!

Visit us at [www.juicedLink.com](http://www.juicedLink.com)



# STUDIO IN A BAG

Zaxcom's **Fusion** is the perfect location sound solution for multi-track high resolution recording, mixing and effects processing of sound for picture.



## TESTIMONIALS

The specific demands of our show require in bag solutions. 8 iso tracks with in-line (signal) processing provides more flexibility. All Compact Flash recording means no moving parts. The Fusion is perfect for us.

**Steve Jones, Sound Supervisor**  
"Extreme Makeover: Home Edition"

Easy, logical, powerful, solid state - no more hard drives! 8 discreet channels of beautiful digital audio in my mixing bag!

**Tomm Dauenhauer, Audio Supervisor**  
"Snoop Dogg's Father Hood"  
E! Entertainment TV Productions

Fusion is the solid state way ahead – it offers me the vast inputs, and extensive outputs, of the existing Deva recorders, plus the incredible ability to record without moving parts. I can make primary and back up recordings in real time, whilst enjoying the known and trusted touch sensitive user interface that I am used to from being a Deva user. This is more than a recorder, and much more than a mixer. It is a mixer/recorder par excellence.

**Simon Bishop, Production Sound Mixer**

## FEATURES

Intuitive touch screen interface

10-track dual Compact Flash recording capability

Lightweight design

8 mic/line inputs with 48V power

4 AES input pairs with sample rate conversion

16 x 16 digital mixer with prefader/post fader assign

Effects include: EQ, notch filters, compressor and delay

**Zaxcom**

Fusion starts at \$7,995

To learn more visit [www.zaxcom.com](http://www.zaxcom.com)

# Anywhere.™



Since its introduction, the 788T recorder has become the choice of successful sound mixers everywhere. Each of the 788T's eight mic/line/digital inputs can be sent to any of twelve recording tracks. Its three available storage mediums, including its 160 GB internal hard drive (need bigger or an SSD...swap it out) or CompactFlash, give you the flexibility to keep up with the demands for higher tracks counts. The new CL-8 Controller and its eight large faders give even more flexibility and control. Whether carried over-the-shoulder or on a production cart, the 788T is the perfect fit.

Stop in at Coffey Sound or visit [sounddevices.com](http://sounddevices.com) to learn more about Sound Devices 7-Series line of recorders.



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