Meet the Winners from the 55th Annual CAS Awards

Netflix Deliverables Decoded
CAS President’s Award Recipient MaryJo Lang CAS
CES Wrap-Up and TEC Awards Recap

SPRING 2019
CONSIDER AMAZON ORIGINALS
FOR YOUR EXPLORATION

“A MASTERPIECE NEARLY AS IMPRESSIVE IN EXECUTION AS THE CLimb ITSELF.”

The Seattle Times

FREE SOLO

A FILM BY ELIZABETH CHAI VASARHELYI & JIMMY CHIN

Outstanding Sound Editing for a Nonfiction Program (Single or Multi-Camera)

Deborah Wallach

NATIONAL GEOGRAPHIC

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Cover: Collage of CAS Award-winning projects
After an awards show that was nothing short of spectacular, we present to you an issue dedicated to this year’s winners. Not only do these highlighted interviews offer technical and creative insight, but they offer a snapshot of our industry and our accomplishments as artists and craftsmen. This is also the issue of our CAS Quarterly that involves the most work from the most volunteers every year.

So, I send a huge congratulations to all of our winners and award recipients and a massive thank you to our generous volunteer contributors! All of you lift us up as a community through your hard work and dedication.

I am also happy to report that our new members of the Board of Directors are settling in and you are well-represented by community-minded professionals who are eager to serve. We welcome Steve Venezia CAS as a member of our Executive Committee as our Treasurer. We also welcome Amanda Beggs CAS and Mary Ellis CAS as representatives of production, and Onnalee Blank CAS and, Past President Mike Minkler CAS as post representatives.

Additionally, your Quarterly will soon be headed up by Matt Foglia CAS, who will move up from his co-editor position of 12 years and become our new editor. Matt will be assisted by our Chair of the Publishing Committee, Stephen Tibbo CAS, who will drive the direction of creative content collecting your story ideas and providing volunteer opportunities in the CAS Quarterly.

They will work hard in the creation of this publication to highlight who you are, celebrate your successes, and share your adventures. If you have a story to tell or a desire to explore an aspect of our industry, please reach out.

We are actively expanding opportunities to participate in the CAS by creating additional volunteer opportunities and membership activities. We encourage you to enrich your experience by getting more involved and communicating what we can do to better serve you.

Our greatest value as an organization is our members and we want to empower you to let yourself be known, to get to know one another, and to get the greatest value possible from your membership.

Together, we will do great things!

Karol Urban
CAS MPSE
President

CINEMA AUDIO SOCIETY
MISSION STATEMENT
To educate and inform the general public and the motion picture and television industry that effective sound is achieved by a creative, artistic and technical blending of diverse sound elements. To provide the motion picture and television industry with a progressive society of master craftsmen specialized in the art of creative cinematic sound recording. To advance the specialized field of cinematic sound recording by exchange of ideas, methods, and information. To advance the art of auditory appreciation, and to philanthropically support those causes dedicated to the sense of hearing. To institute and maintain high standards of conduct and craftsmanship among our members. To aid the motion picture and television industry in the selection and training of qualified personnel in the unique field of cinematic sound recording. To achieve for our members deserved recognition as major contributors to the field of motion picture and television entertainment.

CAS SPRING 2019
NEW MEMBERS
Active
Ronnie Ali
Mark Camperell
Wilfredo (Willie) Elias Rivera
Alexandra Fehrman
Mark Hensley
Bill McMillan
Richard Ragon
Peter Schneider
Brad Sherman
Ceri Thomas
Joseph White Jr.
Ray H. Zhao

Associate
Matt Brailey
Sam Casas
Javier Cortes
Thomas Doolittle
Millar Montgomery

Student
Joseph Hartshorn

Board of Directors: Peter Damski, Glen Trew, Peter J. Devlin, Willie D. Burton, Vice President Phillip Palmer, former President Richard Lightstone, Treasurer Steve Venezia, Tom Fleishman, Mary H. Ellis, Sherry Klein, Marti D. Humphrey, Jeff Wexler, Mathew Waters, Amanda Beggs, Doc Kane, Bob Bronow, Secretary David Bondelevitch, Onnalee Blank, former President Ed Moskowitz, former President Melissa Hofmann, former President Mark Ulano, President Karol Urban, Lee Orloff
"STAGGERING. MARVELOUS.

The nature show we’ve been waiting for. It doesn’t just acknowledge climate change – it charges its audience to take responsibility.”

VANITY FAIR
In our careers, where we begin and where we end up can be far apart. Even if we achieve the professional level we had always aspired to, the road to get there is often anything but straight. In our “Meet the Winners” interviews, you’ll find insight into the processes behind some of this year’s CAS Award-winning projects while also hearing about the paths many of these mixers traveled to get there. Also, discover the stories and the people behind our Outstanding Product winners and read about our Student Recognition Award winner Anna Wozniewicz, and how she is propelling herself into the world of immersive audio. We’re honored to have awarded MaryJo Lang CAS with our highest accolade, the CAS President’s Award. Jesse Dodd CAS sat down with the renowned Foley mixer to hear about her passion, challenges, and time in the industry.

In order to help clarify some of the technical audio specifications of the number one video streaming platform, Karol Urban CAS MPSE poses some technically detailed questions to Scott Kramer of Netflix. We hope the fruits of this discussion will better inform those who are content producers or those curious of changing industry practices. Also in this issue, David Bondelevitch CAS MPSE shares thoughts on CES 2019 and gives us a rundown of this year’s TEC Awards ceremony; chatting with the legendary Leslie Ann Jones in the process. As always, you can read about your fellow members’ happenings in the “Been There Done That” section and see them in action in “The Lighter Side” picture submissions.

Some “aside” remarks from co-editor Matt Foglia CAS here. This is the first issue with our new Board of Directors (BOD), Treasurer Steve Venezia CAS, and President Karol Urban. I would like to thank those who offer their time to serve in these positions, as it is a true commitment.

On a personal note, while I am saddened to be losing my co-editor of the last number of years, I would like to express how excited I am for our organization to have Karol lead as president. Karol has worked tirelessly (literally, she gets crazy busy) as a member of the BOD, organizing or moderating events, and keeping the CAS Quarterly running. She is very forward-thinking and will serve the CAS well.

Finally, remember that the Quarterly relies on the participation of our members. If you have any feedback or suggestions, send them in! Also, if you’re interested in contributing or have an idea for an article, let us know. Email us at CASQuarterly@CinemaAudioSociety.org. Lastly, don’t forget that our sponsors are professionals like you who understand the business and the needs of our industry. We encourage your commitment to them.

Wishing all our members, friends, and new readers a fruitful spring.

Matt Foglia CAS
Karol Urban CAS MPSE
FOR YOUR EMMY® CONSIDERATION

OUTSTANDING SOUND EDITING
FOR A COMEDY OR DRAMA SERIES (ONE HOUR)
MARC LAWES, DAN JOHNSON, RUTH SULLIVAN

OUTSTANDING SOUND MIXING
FOR A COMEDY OR DRAMA SERIES (ONE HOUR)
SIMON FARMER, DAN JOHNSON, JAMES GREGORY

“BRILLIANT.”
THE GLOBE AND MAIL

“GRIpping.”
NEW YORK POST

BODYGUARD
David Bondelevitch CAS MPSE is a re-recording mixer and educator who has won two Emmy Awards. He has also won two MPSE Golden Reel Awards and has been nominated 22 times. He is Past President of the Motion Picture Sound Editors. David has been the Secretary of the Cinema Audio Society since 2012 and has been on the Board of Directors since 2003. He has been writing for the CAS Quarterly magazine since 2006 and was co-editor in 2007.

His most recent projects include mixing the documentary *Empty Net*, about the US Paralympics sled hockey team that aired on NBC Sports. He also mixed the documentary *Southwest of Salem*, which recently won a Peabody Award. He also mixed the cult comedy *Jimmy Vestvood: Amerikan Hero*, starring Persian-American comedian Maz Jobrani.

David is also an assistant professor at CU Denver. David received his MFA in Cinema Production from USC. He also holds a Bachelor of Music in Jazz Composition from the Berklee College of Music in Boston.

Patrick Spain began his career in the scoring world at Signet Sound in 2001 working on varied films like *Cars* and *Eternal Sunshine of the Spotless Mind*. In 2006, he was hired at the venerable Ocean Way Recording (now renamed United Recording), this time working on everything from Dr. Dre productions to John Mayer records to the score for *Avatar*. In 2011, Patrick was hired as a mix tech at the industry-leading Todd-AO Lantana stages in Santa Monica. His very first day there was an FX playback of a single reel of *Avengers* for director Joss Whedon on the same stage where Stevie Wonder was mixed! It was in this incredible environment that Patrick learned the ropes of film and television audio post from some of the best re-recording mixers, editors, and sound supervisors in the world. He worked on shows as different as the run-and-gun feature *Lone Survivor* to HBO’s *Girls* to the music centric hit *Nashville*. After the closing of Todd-AO, Patrick worked a quick stint at Technicolor Sound Services, and then made the jump to freelancing as a re-recording mixer full time. In that time, Patrick has mixed for clients such as Netflix, Disney, WB, ABC, and DreamWorks.

Devendra Cleary CAS is a Los Angeles-based production sound mixer who has just completed Season 1 of *Mayans M.C.* for FX and is currently working on *Schooled* for ABC. He is an Executive Board member for I.A.T.S.E. Local 695 and a frequent contributor to the CAS Quarterly. He joined the CAS as an Associate member in 1999 and became a full member in 2008.

Peter Kelsey CAS started his career in sound at the illustrious independent recording studio Trident Studios, where all the early Elton John and David Bowie albums were recorded. Here, Peter learned from engineers and producers such as Rupert Hine, Ken Scott, Roy Thomas Baker, Robin Geoffrey Cable, and David Hentschel. He was a second engineer on the Carly Simon album *No Secrets*, and part of the mixing team for Elton John’s album *Goodbye Yellow Brick Road*.

After moving to the USA, he did a lot of work as a scoring mixer before moving into post-production sound. He has worked on many David Kelley shows, including *Ally McBeal* and *Boston Legal*, for both of which he won sound mixing Emmys. He worked for RH Factor for many years and for the last three years, has worked for Smart Post Sound. He is currently working on *Speechless*, *The Chi*, *Arrested Development*, and *Dead to Me*.

Peter has a degree in mathematics, a black belt in taekwondo, and loves public speaking.

Matt Foglia CAS is a two-time CAS Award-winning, Emmy-nominated re-recording mixer and educator based in Nashville. Starting his career in NYC, Matt was a sound engineer for Sony Music Studios before taking the post of Chief Audio Engineer for PostWorks New York in 2001. Matt has mixed hundreds of hours of programming for networks such as Comedy Central, Discovery, ESPN, HBO, MTV, PBS, truTV, and VH1 and for artists, including Bruce Springsteen, Paul McCartney, Ozzy Osbourne, My Morning Jacket, and Phish.

Matt left NYC in 2008 after accepting a faculty position at Middle Tennessee State University where he is a tenured professor teaching undergraduate and graduate courses relating to sound for picture. Matt has been the co-editor of the CAS Quarterly since the fall 2007 issue. Matt loves spending time with his wife and two teenagers, playing guitar and discussing the nuances of the Beatles, Kiss, and Billy Joel. Matt continues to mix and edit remotely for clients.
Call it MASTERCULF
CONSIDER IT MARVELOUS

The Marvelous Mrs. Maisel
amazon prime video
On February 16, 2019, more than 650 members of the Cinema Audio Society and the sound community met at the Wilshire Grand Ballroom of the InterContinental Los Angeles Downtown for the 55th Cinema Audio Society Awards. The elegant evening brought together the top sound mixers from production and post for what CAS President Mark Ulano described as “our annual family reunion” where we “celebrate getting together and each other’s work.”

The festivities launched with a cocktail reception sponsored by Avid. Title sponsor Dolby welcomed everyone to the awards dinner, hosted again this year by Michael Kosta. With his polished wit and seamless flow, the Daily Show comedian entertained all in attendance while making the evening fly by.

Throughout the night, celebrity presenters graced the stage, including Bradley Cooper (A Star Is Born), Dean Parisot (Galaxy Quest), Alex Honnold (Free Solo), Megan Fox (Teenage Mutant Ninja Turtles), Kirsten Vangsness (Criminal Minds), Tom Payne (The Walking Dead), Lauralee Bell (The Young & the Restless), Julia Butters (Once Upon a Time in Hollywood), Zoe Bell (Once Upon a Time in Hollywood), and Beverly Todd (The Bucket List).

Once the last award had been received, after-party sponsor Smart Post Sound invited all in attendance to wind the night out in true fashion in the Wilshire Grand Ballroom’s foyer.
THE 55TH CAS AWARDS
FOR OUTSTANDING ACHIEVEMENT IN SOUND MIXING FOR 2018

MOTION PICTURES – LIVE ACTION
BOHEMIAN RHAPSODY
Production Mixer John Casali
Re-recording Mixer Paul Massey
Re-recording Mixer Tim Cavagin
Re-recording Mixer Niv Adiri CAS
ADR Mixer Mike Tehrani
Foley Mixer Glen Gathard
Foley Mixer Jemma Riley Tolch

MOTION PICTURES – ANIMATED
ISLE OF DOGS
Original Dialogue Mixer Darrin Moore
Re-recording Mixer Christopher Scarabosio
Re-recording Mixer Wayne Lemmer
Scoring Mixer Xavier Forcioli
Scoring Mixer Simon Rhodes
Foley Mixer Peter Persaud CAS

MOTION PICTURES – DOCUMENTARY
FREE SOLO
Production Mixer Jim Hurst
Re-recording Mixer Tom Fleischman CAS
Re-recording Mixer Ric Schnupp
Scoring Mixer Tyson Lozensky
ADR Mixer David Boulton
Foley Mixer Joana Niza Braga

TELEVISION SERIES – HALF-HOUR
MOZART IN THE JUNGLE “Domo Arigato”
Production Mixer Ryotaro Harada
Re-recording Mixer Andy D’Addario
Re-recording Mixer Chris Jacobson CAS
ADR Mixer Patrick Christensen
Foley Mixer Gary DeLeone

TELEVISION NON-FICTION, VARIETY, MUSIC SERIES OR SPECIALS
ANTHONY BOURDAIN: PARTS UNKNOWN “Bhutan”
Re-recording Mixer Benny Mouthon CAS

CAS STUDENT RECOGNITION AWARD
ANNA WOZNIEWICZ
Chapman University, Orange, California

OUTSTANDING PRODUCT AWARDS 2018
PRODUCTION
DUGAN AUTOMIXER
Manufacturer: SOUND DEVICES

POST PRODUCTION
RX 7
Manufacturer: IZOTOPE, INC.

Photos: Alex J. Berliner/ABImages
In his outgoing speech, Mark Ulano declared, “It has been a profound privilege for me to serve as the president of the CAS for the last four years. I have always felt the gravitational pull of family, community, and contribution and the CAS has given me the gift of all three.” As he announced the installation of the newly elected officers to the Board of Directors, Ulano recognized the volunteer efforts of members vacating Board seats and imparted an appreciation to the incoming members for their future service.

Incoming President Karol Urban CAS MPSE accepted the gavel from Ulano with a speech underscoring the value of the vast knowledge and camaraderie available within the membership of the CAS, thanking those who “take the time, at seemingly no personal gain to themselves, to welcome those like me into the fold.”

All the finalists for the CAS Student Recognition Award were thrilled to discover that thanks to co-sponsors of the award, Aaton-Digital and IMAX, the cash awards for all four finalists and winner Anna Wozniewicz of Chapman University had been doubled over years past! Seventeen other companies generously donated production and post-production sound-related items for inclusion in the gift bags the student finalists received in order to help jump-start their careers in sound.

Outside of the seven categories for Outstanding Sound Mixing for Motion Picture and Television and two Outstanding Product Awards, the evening celebrated the careers of three individuals whose contributions to the sound community have been undeniably substantial; MaryJo Lang CAS, Lee Orloff CAS, and Steven Spielberg.

With almost 300 projects to her credit, Foley mixer MaryJo Lang was awarded the rare CAS President’s Award. Presenting the award, Mark Ulano remarked, “Her talent for storytelling with sound has made her the first choice for many of our greatest filmmakers.” Lang, who has recently retired, has long been an active member of the CAS, serving on the Board of Directors for multiple terms.
FOR THY CONSIDERATION

“DEMONICALLY GOOD VISUALS”
Animation Magazine

“WONDERFULLY WEIRD”
The New York Times

MICHAEL SHEEN  DAVID TENNANT

GOOD OMENS

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OUTSTANDING LIMITED SERIES AND ALL OTHER CATEGORIES INCLUDING OUTSTANDING SOUND EDITING AND SOUND MIXING
Re-recording mixer Chris Boyes and director Dean Parisot regaled the room with tales of passion and integrity when speaking of fellow collaborator Lee Orloff. Presented with our highest honor, the CAS Career Achievement Award, Orloff reflected, “I can’t help feeling grateful to have chosen to spend my life this way. I have been so incredibly fortunate to work in an industry, along so many men and women who head to work fully committed every day to give it their all, day in and day out.”

Steven Spielberg stepped onto the stage to accept the Filmmaker Award after a heartfelt introduction from Bradley Cooper and longtime collaborators, production sound mixer Ron Judkins, and re-recording mixers Gary Rydstrom CAS, and Andy Nelson CAS. They remarked on the incredible privilege of working with such a director as Steven, who truly appreciates and uses sound fully. “Steven has created, I think, the most varied and most memorable sound moments in film history. He weaves together sound effects, music, and dialogue in a way that helps tell the story and creates emotions,” declared Rydstrom. In his speech, Spielberg highlighted a former head mixer at Universal, Ronald “Ronnie” Pierce, who taught him more about sound than anyone else before. “The thing about sound people is they’re nice to others. They’re generous with their time. They love students and they love to answer questions.”

The Cinema Audio Society congratulates all of this year’s winners and nominees as representatives of the best that our industry has to offer. We remain humbled by your dedication to, passion of, and rousing endorsement of the art and craft of sound for picture. The mission of the CAS is always to promote, advance, educate, and support these same efforts. Our deepest thanks to all of our sponsors, volunteers, and participants, without whom this evening would not have been the successful, shining example of what we hope to achieve in coming years. We look forward to another year’s worth of exemplary storytelling through the ears and imaginations of our members and the opportunity to highlight the best of the field at the 56th CAS Awards event next year.
a job as utility sound, then became a boom operator and then went into mixing in 2005. My previous mixing credits include dialogue-driven films such as *Tinker Tailor Soldier Spy* and *Darkest Hour* to musicals such as *Into the Woods* and *Beauty and the Beast*, which had a mix of dialogue, playback, and live singing.

For this movie, I was contacted by Richard Hewitt, our line producer. When he told me about the project, I was very excited to get involved in a film about such an iconic band.

How much time did you have to complete the production and how big was your team?

I started my prep in August 2017 and we started principal photography in September. We completed filming in January 2018. My crew consisted of two 1st assistants [boom operators] and one 2nd assistant [sound utility]. Neil Stemp was our playback operator. When we shot the Live Aid sequence, we had two additional crew looking after the PA on stage.

Please describe your workflow and any problems you encountered.

We had a standard film workflow. I recorded onto my Cantar X3, jammed the cameras, and used DigiSlates, so nothing particularly unusual.

What was the most challenging aspect of working on this project?

The Live Aid recreation had its challenges. We wanted the Live Aid experience to be as immersive as possible for the cast and crowd. Pepin Clout from John Henry’s Ltd. was a great help sourcing period speakers for the stage. We also had a full line array system for the crowd of 500. We made all the stage mics live so that we could record the actors singing. We placed a Soundfield ST450 surround microphone in the middle of the crowd when possible to get 5.1 effects.

PAUL MASSEY:
Re-recording Mixer (Dialogue & Music)

What’s your background?

I started as a musician right out of school playing in bands, and then became a music engineer. I worked both in studios and recording live stadium concerts from mobile trucks. I finally
CONSIDER AN AMAZON ORIGINAL

TOM CLANCY’S JACk RYan

OUTSTANDING DRAMA SERIES
AND ALL OTHER CATEGORIES INCLUDING

OUTSTANDING
SOUND EDITING
AND SOUND MIXING

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transitioned into film mixing about 34 years ago. Since then, I’ve worked on more than 200 films.

How did you get involved in mixing *Bohemian Rhapsody*?
Through a combination of recommendations from John Warhurst (supervising sound and music editor), John Ottman (picture editor), and 20th Century Fox. I had worked several times previously and also separately with both John Warhurst and John Ottman on a variety of films.

How much time did you have to complete the production and how big was your team?
I had two weeks for dialogue/ADR/group pre-dubs, followed by six days of a music “preliminary” mix. That was followed by about 3½ weeks of final mix/playback/fixes. Deliverables took another 12 days and included things like the Theatrical Atmos, 7.1, 5.1, IMAX [theatrical], 12.0, 5.0, Home Theater Atmos, 7.1, 5.1, [nearfield] 2.0, and all international M&Es. Lots of stuff.

The dialogue and music team consisted of two dialogue editors and two music editors. Plus, Niv Adiri handled the singing crowd pre-dubs. Tim Cavagin was the FX mixer and had a separate team for FX, BGs, and Foley.

Please describe your workflow and any problems you encountered.
I like to mix through consoles, not “in the box.” My preferred consoles are Harrison MPC5 and Neve DFC for both dialogue and music mixing. I depend heavily on the Harrison “Toys” plugins for all dialogue processing, both in pre-dubs and final mixes. “Toys” also provides great “onboard console” outboard gear for music mixing. The only dialogue plugins I occasionally use are iZotope and Speakerphone.

What was the most challenging aspect of working on this project?
Bringing the iconic music of Queen into a 2018 Atmos cinematic experience while maintaining a link to the sound that audiences and fans have come to love and expect from Freddie and the band.

What was it like collaborating with the producers and director of this project?
Graham King (producer) and Denis O’Sullivan (executive producer) were extremely supportive and professional. I couldn’t have asked for better! They were incredible to work with.

How involved were Brian May and Roger Taylor in the construction of the final sound?
They were very involved with the music and it was wonderful to collaborate with them. They were very open to ideas, obviously very passionate about the sound of the band, and let me present full mixes to them before getting into the more-detailed notes. It was a wonderful way of working for me!

Can you share how you recreated the atmosphere of Live Aid?
We recorded all of the live songs portrayed in stadiums through Queen’s PA at London’s O2 Stadium (with approximately 20,000 seats) while they were performing a series of concerts there. We managed to set up 22 mics around the stadium and played all the songs through the PA to get the sound of the stadium without any audience present. I was then able to assign these recordings into Atmos Objects and use them as reverb returns to create height and depth to the Live Aid portion of the film.

We also recorded approximately 600 people singing the songs without any music playing in the background, double tracked, then triple tracked to give us approximately 1,800 people singing. This gave us control of audience singing separate from the usual music “spill” in the PA, and also separate from FX crowd cheers, group close-up chants and shouts, etc. Then I used a variety of delays and reverbs to further create space and perspectives as the shots moved from close-up on stage to wider, back-of-stadium perspectives. It was tremendously challenging and extremely rewarding!

Is there anything else you’d like to add?
It was incredible to have access to all the original Queen 24-tracks of their live and studio recordings, including Live Aid. It provided me with much-needed flexibility when highlighting individual instruments and vocals in the concert scenes. A project of a lifetime for me!

TIM CAVAGIN: Re-recording Mixer

NIV ADIRI CAS: Re-recording Mixer

Tim Cavagin and Niv Adiri were responsible for the SFX and crowd vocals and production effects respectively. Tim was also part of the team that won last year for *Black Mirror*. While these two were unavailable for comment, likely busy on the next masterpiece, CAS celebrates their incredible work on this film.

MIKE TEHRANI: ADR Mixer

What’s your background?
I studied film and media production at Sheffield Hallam
University where I graduated with honors. After graduating, I temped as a runner for a few facilities around London until finally, I came to Goldcrest, where they offered me a full-time job as a runner after a week of temping.

From there, I was trained up by a few brilliant people in the industry such as Peter Gleaves (a former CAS Award winner) and Mark Appleby (a CAS Award nominee). I went on to assist them as ADR recordist and eventually started to cover smaller sessions, which eventually put me in a position to run as ADR mixer full time. Luckily, from my time assisting Mark and Peter, I got to know a lot of the dialogue editors, one of which being Nina Hartstone. She thankfully gave me the opportunity to work on this project with her after working on *Adrift* with her previously.

Tell me about ADR on the film.

In terms of principal ADR, we shot a reasonable amount to have all the options available in the mix and to be able to use it to fix the original track where appropriate.

With our group tracks, we recorded around 40 people with a range of accents for the scenes so that it was specific to the countries we were in at the time of the movie. So, we had German, English, American, Portuguese, Brazilian, and so on. It was an amazing week or so of group recordings as everyone came in with so much energy, desperate to sing along to Queen songs and shout Freddie’s name. At the end of every day, it felt like we had been to a concert for real.

Nina was in after group recordings to fill out the space and record any specific crowd members singing along; picking them out to really pull out the individual focus on any cut scenes to audience members, roadies, or technicians to really bring the audience to life.

Denis O’Sullivan and John Ottman directed the ADR sessions for the principal cast and they were an absolute pleasure to work with. They really made the sessions enjoyable and productive and made us all feel part of the team from the start.

Brian and Roger sadly didn’t attend any ADR sessions but I know they were very present and attentive to everyone’s needs and questions during the mix and through the film, whether it be technical or not.

What other projects have you worked on?


How did you get involved in mixing Foley for *Bohemian Rhapsody*?

John Warhurst, the supervising sound editor, has worked with our team at Pinewood on previous projects and was bringing *Bohemian* to us. Pinewood’s Head of Audio, Glen Gathard, put me forward to work collaboratively with him as Foley mixer on the project, which I was very honored to do.

Please describe your workflow.

When we receive a project, we generally like to watch it all through from start to finish to get a feel for the film in a run. We then take onboard our sound supervisor’s notes, alongside the director’s vision and begin to chart the show so that when it comes to shooting, it makes it all work a little smoother. We then worked through the film shooting the feet first, then moved onto the spots, and finishing with recording the moves. This way we can then review all of the work that we have done to make sure that we are happy with everything.

What was the most challenging aspect of working on this project?

It was making sure that any sounds that we had recorded worked well with the music and nothing clashed. Checking that we weren’t overloading any musical scenes and the choices that we had made sat in with the music, pointing out the details that we wanted audiences to hear.

Is there anything else you’d like to add?

It was a great privilege to work on this film with such a fantastic team, so I would like to say thank you to all those involved! It was such a surprise to be nominated for a CAS Award. It was my first nomination and I was so excited that it was for this film, so winning it completely blew my mind!
GLEN GATHARD:
Foley Mixer

What is your background and what other projects have you worked on?
I have been at Pinewood Studios for 16 years, working my way through the sound department at different levels and am now the Head of Audio for Pinewood Studios.

I have been lucky to work on some great projects throughout my career such as the Harry Potter series, Bond, Batman Begins, Rocketman, Dumbo, Aladdin, Wonder Woman, and The Division 2, amongst many more.

How did you get involved in mixing Foley for Bohemian Rhapsody?
John Warhurst approached us to be part of the team looking after the Foley. I have incredible respect for John as both a sound supervisor and a world-class sound engineer, so it was an instant “yes” and “when can we get cracking” from me.

How much time did you have to complete the Foley and how big was your team?
In total, we shot for four weeks. This was including any recuts and changes we wanted to make for technical or creative reasons. On the project, I worked alongside Jemma Riley Tolch as the Foley mixer on the project. Jemma is an exceptional talent in our industry and team, as well as a huge role model to aspiring engineers. We also worked with our fantastic Foley artists Zoe Freed and Pete Burgis, and to finish off the team, Adam Bourne was our Foley editor. Adam is a Queen mega fan, so this was incredibly handy when we were cutting and performing to music and in key.

Please describe your workflow and any problems you encountered.
In most cases, I would have a spotting session with our sound supervisor on the project and run through both their notes and the director’s core notes. It is important that we are on the same page as there are a million ways you can shoot and engineer a Foley session and we need to make sure that the style choice is in true keeping with the rest of the sound team’s workings.

The biggest challenge for me was to make sure that anything that we shot with the intention to play alongside the music was not suffering from any auditory masking. It was also about identifying where our Foley involvement was truly required and when to make a call that the music is so powerful that nothing needs adding at all. I think it is important to always be thinking about the purpose of the sound you are recording and to make decisions at the record point to whether it is needed at all.

Lastly, I wanted to always be mindful of the key of the music and make sure that anything that we did sat comfortably within it. Also, we needed to make sure that when editing anything that contained transient qualities, it worked in with the percussion of a track even if that meant cheating the sync at times.

What was the most challenging aspect of working on this project?
I think the most challenging part of working on the film was attempting to stop singing the songs! There is something incredibly addictive about Queen’s music.

Is there anything else you’d like to add?
I would really like to thank CAS and everyone that supported Bohemian. It was a tremendous honor to be in a room with so many true sound rock stars on the night of the awards. I would like to thank the sound community for their kind words following the film’s win. Lastly, I would like to thank my team at Pinewood for their incredible commitment to everything they do day in, day out at the studios.

A few fun sound facts that I learned at a screening with a Q&A afterward.
The majority of the vocals used in the movie are Freddie’s actual vocals with only a little bit of Rami and a Freddie soundalike to fill it out.

Paul Massey had access to the original 24-track tapes of Queen’s music and was thus able to use the drums played by Roger, the guitars played by Brian, and the bass played by John.
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CAS Award Winner – Animated

Isle of Dogs
by David Bondelevitch CAS MPSE

Set in a futuristic dystopian Japan, Wes Anderson’s stop-motion animated Isle of Dogs follows a boy in search of his dog as a result of all dogs being banished to a remote island! I was able to catch up with the Foley mixer Peter Persaud CAS, the scoring mixers Xavier Forcioli and Simon Rhodes, and the re-recording mixers Christopher Scarabosio and Wayne Lemmer. Due to scheduling however, dialogue mixer Darrin Moore was unavailable for comment.

PETER PERSAUD CAS: Foley Mixer

Peter Persaud grew up in Oakville, Ontario, just outside of Toronto in Canada. I asked him how he got interested in Foley and sound. “Well, like everyone in sound, it starts with taking music lessons. Specifically, guitar. I took flamenco guitar lessons from grade school through my teens. I grew up as a metal head, but when I started learning about flamenco guitar, it opened my eyes to how influential music is to life and life is to music. I grew up in the 70s, and I was one of those kids that listened to albums for a super long time. Because our television was right beside our stereo, I grew up with headphones on. Some things never change, I guess!

“In my teen years, I used to work at a grocery store. I went to hang out at the comic book store all the time on breaks. While I was there, one of the employees told me about a media arts course he was taking at the local college. When he said he was using a recording studio in the course, I was hooked. I have plenty of mentors, most of them are still leading the path for me. All of them have the same common base; a passion for sound and an understanding of how it can shape and play with all sorts of emotions.”

He went on to explain that he was doing Foley on this film because of previous relationships with the post crew. “Steve Baine (Foley artist) and myself have a great working relationship with re-recording mixer Wayne Lemmer. We’ve been fortunate to work for years on some really great films for Wayne.” They also worked on director Wes Anderson’s previous films, Moonrise Kingdom and The Grand Budapest Hotel.

I asked Peter if there were any challenges unique to the film. “There’s a scene of Atari getting out of his plane that was super fun to do. The first sound we did was the feet getting out of the plane. As I heard the first step and it sounded like that plane, the rest was just plain fun. Atari’s shoes were a bit of a challenge. We knew Wes wanted something very distinct. I’m not sure what Steve used, but it came from his bag of pixie dust.”

Peter uses an older API rack mount console and Pro Tools. “I tend to stay ‘out of the box’ with my gear,” Persaud added. “Foley in Canada has always meant matching sync to picture off the floor. Whenever we use plugins, it is to add more delay to Steve’s live performance, so I run a lot of outboard gear and just use the Pro Tools for recording. There’s something about reaching for a piece of gear that is still fulfilling.

“We record with a different style than some artists,” he continued. “We like to record all the feet first, like a drum track. Then we do all the props and try to make it just ‘fit’ into the environment in the scene, and then the cloth. For some reason, we try to keep to around 24 tracks, maybe it’s because of working with tape. So it’s usually one track for cloth, nine tracks for feet, and the rest for props.

“I don’t really use plugins too much, but I have been using iZotope’s Neutron. I use the Transient Shaper here and there. It sounds to me like it’s doing something.”

Asked if he would like to thank anyone who worked with him, he replied, “First off is Steve Baine of course. Steve and I have our own studio called Foley One. Gina Wark is our assistant and babysitter. Wayne Lemmer as always, a big thank you!”

XAVIER FORCIOLI: Scoring Mixer

Xavier studied in Paris and obtained a master’s degree in law and journalism. He studied some piano as a kid as well. At around age 12, Xavier explains, “I got into rock music and black music. I was trying to understand (where) that sound was coming from and how to make it. That led me into computers, synths, FXs, etc. When I first met (composer) Alexandre Desplat for a position, I knew almost every machine in his rig. I think this element of my (non-music) education got me onboard.”
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Xavier has been working with Desplat for almost 15 years, including working on Wes Anderson’s previous stop-motion film *Fantastic Mr. Fox*. He continues, “At first, I was mainly handling the production part in his company. But because of my interest in the sound, and also because I understood how Alexandre wanted his music to sound, I got more involved with the sound by prepping the scoring: programming the synths, building Pro Tools sessions, etc.”

Asked why there were two scoring mixers on the movie, he explained, “I have a huge respect for the job of sound engineer, and I am so impressed with what can be delivered. In that respect, Simon Rhodes is a true genius. He knows Alexandre very well and what he is expecting the orchestra to sound like. I usually pop up once the music is recorded. Usually the music is mixed by the engineer, but due to a shortage of time, the mix is not exactly what Alexandre may have in his mind, so he lets me make alternate mixes.”

Xavier uses Digital Performer (Alexandre’s main DAW) and Pro Tools. He uses a Bricasti M7 for reverb and an API 2500 compressor. For plugins, he likes “almost all the UADs, the Sonnox Oxford plugin, and the Flux Alchemist and Solera plugins.”

Asked if there was anyone he would like to thank, he added, “Wes Anderson for having such a creative impulse and Romain Allender (Alexandre’s assistant), who is always around before scoring.”

**SIMON RHODES: Scoring Mixer**

Scoring mixer Simon Rhodes is well known in Europe for his many sessions at Abbey Road. Simon studied classical music when he was growing up, learning both piano & violin. In college, he majored in physics at the University of Wales.

Simon had previously worked with Wes Anderson on his film *The Grand Budapest Hotel*, which was scored in London with composer Alexandre Desplat. “Wes is very hands-on. He takes great pleasure in crafting the film and the music. Wes worked directly with Desplat in the composing process, but the composer was never in the recording studio. Wes took the score and shaped it by editing it up accordingly.

“There were some very stylized choices such as having every cue at 100 bpm. That created a score that was quirky, yet at the same time, very clean and tidy, much like Wes’s personality.

“Wes shies away from the traditional; he avoids using a conventional orchestra. On *The Grand Budapest Hotel*, there were no strings in the composed score, but one session had 30 balalaikas!” For this score, Anderson and Desplat used taiko drums, the great, large Japanese drums. He used multiple types of taikos, with five taiko specialists flying in from all over the world. The score also used other quirky instruments, including a woodwind section compromised of recorders. Additionally, there were saxes, French horns, Celeste, piano, tons of percussion, and upright bass for the jazz moments. Simon described his technique as “setting up more mikes than could ever be needed,” which is how he feels it is best to record. The only limitation in the number of stereo stems created was the number of voices available in Pro Tools. Simon described having “acres” of splits.

The score was recorded at AIR Studios in Studio 1 on the custom Neve console and Pro Tools, using many overdubs of smaller sections. Stems were created in stereo, as Simon knew there would be a lot of rearranging of them on the dub stage.

Music supervisor Randall Poster helped find the unusual instrumentalists and facilitated the director’s requests. Stems were recut by the supervising editor Andrew Weisblum and music editor Yann McCullough after input from Anderson.

“I’d like to thank Yann, the music editor, and Jeremy Dawson, producer. John Prestige was the scoring stage assistant. Our musical director (orchestrator and conductor), Conrad Pope, did a notable job as well. And of course, Wes is an amazing person!”

**WAYNE LEMMER: Re-recording Mixer**

Sound effects re-recording mixer (and supervising sound editor) Wayne Lemmer hails from London, Ontario, Canada. He studied at the University of Western Ontario, getting a bachelor of musical arts degree, which included using Pro Tools to compose musique concrète. Wayne explains, “You could capture instruments, vocals, or record sounds from the real world and create music out of it. I was a percussionist and also into drum sampling and would record real drums and make MIDI trigger pads that I could perform live. From there, I went to OIART to learn better recording and mixing techniques. This is where I fell in love doing sound for film. It allowed me to continue to perform and create art.”

Wayne had previously worked on animated features *Kung Fu Panda* and *Monsters vs. Aliens*. He knew director Wes Anderson from having worked on *The Grand Budapest Hotel*.
Asked about the challenges of mixing, Wayne replied, “The film has an island of trash, so we tried to make it interesting. For instance, at one point they are in a bottle cave, so we tried to have them walking on bottle caps, and every once in a while, we would have them kick trash around. There were a lot of little details to try and sell the different parts of the island.”

Wayne says his go-to plugins are FabFilter EQ, Altiverb, and Phoenix reverbs.

Asked about mentors, Wayne replied, “My mentors would include my parents. They exposed me to music very early in life.”

 Asked if there was anyone he would like to thank, he responded, “Susan Henderson, D’Arcy Gray, my wife, and Wes Anderson.”

**CHRIS SCARABOSIO: Re-recording Mixer**

Re-recording mixer Chris Scarabosio is originally from San Francisco and graduated from San Francisco State University with a bachelor’s degree in broadcast communication arts with an audio emphasis. “I was always fascinated by sound, primarily in the form of music. It was common for me to take apart radios and tape decks trying to figure out how they worked. I’m a musician and was in bands in the ’80s and ’90s and started my career recording music.

“I’ve played guitar since my early teens and still dabble. I’ve done some singing or perhaps it should be classified as ‘vocal styling.’ Playing music with other people is a great way to learn how to listen. The more you do it, the more you start to play more efficiently and make your parts count. I look at sound design and mixing in the same way. What is the most important sound that should be playing at any moment? Is there too much sound happening at one time causing clutter? Most great sound moments have a rhythm and tonal balance that creates something memorable.”

I asked Chris how he became acquainted with sound for picture. “During an internship at a small post-production studio in San Francisco (Focused Audio), I discovered my passion for post-production sound. I was hired full time to work on the new Gumby series, editing sound effects. I was hooked. After taking a year off from San Francisco State to work on Gumby Adventures, I returned and got another internship at Skywalker Sound. I graduated and have been working as a freelancer out of Skywalker Sound ever since.”

Chris has worked with Wes Anderson since Moonrise Kingdom and The Grand Budapest Hotel. “I was happy to get the callback on Isle of Dogs. I love working on Wes Anderson films as they lend themselves to a unique tone. Wes has such a distinct style, and the soundtrack goes along with it.”

Chris had previously worked on other major animated films, including Titan A.E., The Simpsons Movie, and Despicable Me 1 and 2. “Animation really gives you an opportunity to play with reality and have some fun. When the sound is working, it can really bring life to the animation. In this film, I’d say Trash Island, with its ever-changing surfaces and various types of trash blowing throughout the island, was a particular challenge.”

Chris and Wayne use an Avid S6 with Pro Tools HDX3. Asked about track delivery to the dub stage, Chris replied, “Music delivered roughly 70 tracks, some 5.1, some stereo, some mono. Some mixed cues, some raw tracks. Dialogue was pretty contained since it was all ADR. The dialogue was recorded at different studios at different times, so there was some tonal matching that had to be done. All in all, there were probably 20 to 30 tracks as we also recorded Japanese loop group.”

Chris added, “FabFilter ProQ and ProC are mainstays. Altiverb and Speakerphone, as well. The 5.0 reverbs in Altiverb are excellent. I still love the Massey DeEsser, it works well and sounds very natural. I like McDSP Futzbox, as well.

“I’ve learned from some of the greats at Skywalker: Ben Burtt, Gary Rydstrom, Chris Boyes, Tom Johnson, David Parker, and Randy Thom to name a few. I’ve been very fortunate to learn and work at Skywalker Sound. I worked with and alongside those people and learned many helpful methods and techniques, as well as sage advice.”

Asked if there is anyone he would like to thank, Chris stated, “Wayne Lemmer, the sound designer, and [Chris Scarabosio] the other re-recording mixer was critical to the sound of the film. Yann McCullough, the music editor, played a key role in making the score work the way Wes wanted. Robbie Scott and Rachel Park kept the mix running smooth at Goldcrest. Thanks to Jeremy Dawson and Gisela Evert for making it all happen on schedule, and Andy Weisblum, and, of course, Wes Anderson for making Isle of Dogs the great film it is.”
Free Solo is the story of professional climber Alex Honnold and his extraordinary ascent of El Capitan’s 900-meter vertical rock face at Yosemite National Park without fall protection. Directed by Elizabeth Chai Vasarhelyi and Jimmy Chin and distributed by National Geographic, this documentary not only grossed almost $22 million at the box office, but took home this year’s Academy Award for Best Documentary Feature, BAFTA Award for Best Documentary, and our CAS Award for Excellence in Sound Mixing for a documentary film.

It is a truly exceptional work of art and a real example of mastery in sound mixing for documentaries. Here we catch a glimpse into the experience of mixing Free Solo.

JIM HURST: Production Sound Mixer

Were the Zaxcom wireless getting beaten up?
Oh yeah. They got absolutely hammered. Alex had one in his chalk bag during the free solo. I had him wired during the free solo, which is kind of crazy because if I screwed it up, it could potentially kill him if the mic came free ... and the real trick is that the chalk bag he’s wearing slides back-and-forth, so you have to leave the right amount of slack in the cable. I used a B6 for that just to be as thin and small as possible.

It was a ton of work. I’ve worked with DP Jimmy Chin for many years and we have a common friend that we go climbing with and I spent a bunch of years filming climbers who were free soloing. My background is in camera, so I’m a DP also. I specialize in non-specialization for places where a large crew would be impractical or intrusive. I’ve done a few cultural films. If you send a crew to do that kind of thing, it changes the subject. I have no interest in working in LA or the city or anything like that. I live in Southwest Colorado and I’m kind of a wilderness junkie. I’ve been lucky enough to see the most beautiful places on the planet, document what’s there and work at the same time.

The rest of the crew really helped, too. The camera guys were super-smart, and you can imagine starting off the day at 4:30 a.m. to hike up to the base of the cliff. There were a lot of times when Alex was maybe going to try it, so getting timecode to all of the cameras on the wall was a pretty cool process. I trained all the guys on the wall on how to use the Zaxcom receivers and monitor as he goes by so I’d have an RX200 (AA run forever) on the cameras, so if there was anything wrong with his mic, they could pick up on it. I taught them everything I knew about the lavaliere and the transmitters because, since it took place over two years, I couldn’t be there all the time, so those guys could cover me. We used the TRX LA2.5, I ran a 633, then a bunch of Sennheisers, MKH 8060s on the cameras, with low cut, and that was pretty much it. I used the Dugan Automixer when I could, for the most part recorded ISOs and spent a lot of time wandering around the park trying to get cool sounds from the park.

We did an early-morning timecode jam and then leap-frogging, using Tentacles because they’re very lightweight. We were shooting on C300 MKIIs, an Amira, and an Alexa Mini and it’s really easy to have 10 of those in a bag and instantly take a cord and jump it from one to the other. They last 24 hours.

Tell me about the production crew.
They had two camera crews, one on the wall and another when they came back in the evening for all the footage of interaction with Alex in the van, and they didn’t have two sound crews, I was solo sound! A lot of my days were 4:30 a.m. to close to midnight a lot of days in a row. I’m one of the few people who can do that kind of stuff because I’ve been climbing pretty much my entire life and so if I need to be somewhere on the wall, I can get there, fixed lines or free soloing to get there.

I felt a little guilty at the CAS Awards because I got the job that’s got a lot of extra bling to it, where there are people who are way better than me at mixing audio. For me, it has more to do with my ability to access risk and operate in dangerous situations and be physically fit enough to do it. It was a really stressful job. There’s a lot of life-or-death-type things that that kind of filmmaking involves because you’re basically risking your life to tell the story. It’s great, it’s fun, I don’t think about the money or anything, it’s kind of an addiction to telling the story and being part of telling the story.

Jim is currently prepping for a film climbing the north face of Everest.

RIC SCHNUPP: FX and Foley Re-recording Mixer

Our Foley was done in Portugal. It’s not the kind of documentary where we were doing for anything heightened, it all had to feel very real. One of the more interesting parts about what I had to do was just get the Foley sounds for his climbing to be very real-sounding, as if you’re floating right in front of him, so we did two hands and two feet and his chalk bag for the Foley and for any of the close-up climbing scenes, and even the farther away
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Joana, Roland were absolutely wonderful. We did a lot of detail work, but very minimal. It takes a lot of time but it’s all kind of the same stuff. Were they happy with the process, too?

“Do this now!” We could wait, which was nice. We didn’t have to run down the hall and yell, “it on Wednesday. We didn’t have to run down the hall and yell, so it was very easy to pop them an email. I remember a little walking scene where Alex had one foot in a cast and one foot in a flip-flop and he’s walking on a hospital floor, three very specific sounds that only a Foley artist can do justice to. And we had the luxury of emailing them on Tuesday and waiting to get it on Wednesday. We didn’t have to run down the hall and yell, “Do this now!” We could wait, which was nice.

This was really a lot of “less is more.”

Yes, totally. Coming out of that, as you pull things back whenever you need to hit the “more” part of it, you hit it hard, and it has more of an impact. You can hear birds, but they’re quiet and distant, but when there’s one flying in front of your face ‘cause you’re on a mountain, that sound being pushed has a greater impact than if you’re throwing everything into it. The same with the Foley, it had to be very real sounding, and in a lot of cases, you don’t hear it or you barely hear it, just a tiny bit of it, and it’s just enough for it to feel real. This is a very subtle mix. For me, it’s harder. The scenes that are supposed to be quiet or minimal are way harder than just throwing a bunch of stuff in, because you can do that a little easier. It’s definitely more challenging to do the quieter stuff.

Joana said usually the mixer is in the next stage over, and the Foley stage was like seven hours away.

We didn’t have any issues with the distance at all. We had the benefit of time. We mixed for at least three weeks if not more, so it was very easy to pop them an email. I remember a little walking scene where Alex had one foot in a cast and one foot in a flip-flop and he’s walking on a hospital floor, three very specific sounds that only a Foley artist can do justice to. And we had the luxury of emailing them on Tuesday and waiting to get it on Wednesday. We didn’t have to run down the hall and yell, “Do this now!” We could wait, which was nice.

Were they happy with the process, too?

Joana, Roland were absolutely wonderful. We did a lot of detail work, but very minimal. It takes a lot of time but it’s all kind of the same stuff.

This was the fourth film I’ve done with (Elizabeth) Chai. I did two of her films before she and Jimmy met, and I have a working relationship with both of them. Also the editor, Bob Eisenhardt, did a brilliant job I thought, just beautifully cut. All the elements just worked, the excitement of the story, the cinematography was awesome, the whole event was an amazing feat. And when you put that all together with a terrific score, good sound effects, well-recorded dialogue, you’ve got a winner. I knew the first time I saw this film that it was going to blow people’s minds because it’s so unusual, and such an exciting story.
It’s one of my favorite projects that I’ve ever done. I loved working on it, and I love the people involved.

TYSON LOZENSKY: Scoring Mixer

Well for me, the early stages of the project are mainly about receiving deliverables and files and getting them to my boss Marco Beltrami, who was the composer. In the beginning, it was mainly him meeting with Jimmy and Chai and talking about their ideas and vision for the project. From there, they would do the spotting session where they picked where they want cues and what sort of feelings they would like to evoke from them and they were off to the races with writing.

During the writing process, I would mainly be the middle person sending new cues to production, etc., and other times they would go through the music editor on the project, Jim Schultz.

It was a bit different for me actually, as we don’t really work with documentaries much. It’s mostly motion pictures which are often fiction, so something about the honesty and personal nature of this project I really clung to throughout the process. There were times when it was just him on the rock with his thoughts and we tried to make the music a bit closer and more personal. However, there were other times with the big sweeping shots of the mountain where we really were able to get big with the horns and strings and it was just a lot of fun.

Once they got the score in good shape and it came time for the recording, that was when I really came into play as the scoring engineer and mixer. For Free Solo, we did the recording at our studio here, and we did some solo piano/organ recordings, three sessions of strings with varying sized groups, and then one session with brass.

By doing it at our studio here, and recording the strings and brass separate, we were able to control the dynamics a bit more than we would have if they were all together, and it ultimately gave me more control when it came to the mix.

After the recordings were all completed, I would go through and tighten up performances and make edits and then begin the mixing. For me, it is sort of all part of the same process so I am doing some of the mixing aspects while I am editing and setting up, etc. During the mix, we were using the dialogue to shape things around as that was the main focus but there were moments such as the final climb where we really wanted to make a grand moment and had a lot of fun sort of shaping those.

For me, I found this project extremely inspiring as I had been going through my own life stuff and this sort of just gave me a second wind and came at a good time in my life where I needed to be reminded that anyone is capable of extraordinary things. What I did would not have been possible without the rest of the amazing music team and just a few people to note were the composers Marco Beltrami and Brandon Roberts and music editor Jim Schultz.

I still cannot believe what he accomplished and am truly blessed to have been a part of what will for years to come be a very special movie for many people.

DAVID BOULTON: ADR Mixer

David also won this year for The Marvelous Mrs. Maisel in the TV Series One Hour category. Read more about him and his work in that “Meet the Winners” article.

JOANA NIZA BRAGA: Foley Mixer

I work in-house at a Lisbon-based studio (Loudness Films) and usually we work on in-house projects where we can reach any of the filmmakers involved and discuss the project easily with no fuss. It’s really nice to record Foley knowing that the mixer, director, and others involved are in the studio next door.

In the past few years, I was fortunate to be involved in several projects from the US and one of the main issues was to get the “feeling” that was asked in each project by only talking by email or Skype.

We always had a coordinator that worked as our bridge between the United States and Portugal and had to understand this “remote way” of working that we were not so used to (many are, I bet).

When Free Solo arrived at our studio, we had a brief talk with our coordinator who told us what the supervising sound editor Deborah Wallach wanted. While watching the movie, we clearly understood what was missing—The Mountain. That was our main goal. We needed to recreate all Alex’s interactions with the mountain in order to make the audience feel that they were all there with him.

A very cool thing about the project was the fact that this was a documentary feature film that was being treated, let’s say, as a fiction feature film. I’m saying this because I’ve seen a lot of documentaries here that had horrible sound conditions and the (reduced) sound work was more forgiven because the filmmakers would treat them like “guerilla films” and that’s it. As if there was no other way to improve the sound. The better the sound, the better the experience, right? Free Solo had a super-challenging shooting location and the film was always handled with care and that’s one of the biggest reasons for its success. Oh and I can’t forget the fact that the film had this amazing mixing team headed by Tom Fleischman CAS. It’s awesome and a dream come true to know that I was part of such a great team.
I originally thought I’d work in music recording studios but ended up working at Barry Rebo’s video production company. At Rebo Associates, I was the technical manager putting together gear for shoots and things like that. I’d also get to go out and help with production sound, plugging the shotgun and lav into the Betacam, which I really enjoyed. Well, the receptionist’s boyfriend was a camera operator for the BBC and he was looking for a sound mixer, so I went freelance and I’d go on location with him and did a lot of news stories for the Beeb. After that, I started getting around more and wound up working on 60 Minutes and 20/20, which was some of the most memorable work I’ve ever done. But it wasn’t very challenging technically and I wanted to try to work on scripted projects.

The unscripted/doc world is a little separate from the land of scripted projects. How did you work your way inside that world?

Interesting story. John Hazard was a cameraman I did some work with for the BBC and he invited me to a party in Jersey City. He introduced me to another sound guy there—none other than Lee Orloff. We chatted some and exchanged info. So, Lee calls me a couple weeks later and says, “I’m on this movie, it’s four weeks, deferred pay, a low-budget indie. Do you want to boom for me?” At the time, I was young enough to be able to work for four weeks for free. It was shot on the Jersey Shore and was called Salvation! Have You Said Your Prayers Today? I had never been on a film set before because I was in the news and doc world, but I did my own booming in those circumstances so I knew my way around mics and my ears could hear when...
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things were good or when something needed addressing. So, I ended up doing a few projects with Lee. Honestly? I hope I’m a better mixer than I was a boom op!

Sounds like an awesome first on-set experience: The beach and Lee Orloff!

(Laughs) Yeah, Lee was great. One of the main and most basic things I learned from him is how to mix by feel instead of always watching the meters. After working as a boom op on a couple of projects, I mixed a few freebie short films just to get more experience and meet new people. Then there was this project called True Love that no other sound mixer wanted to do because they paid $750 a week flat—with equipment. Lee was one of those mixers and he was kind enough to pass the script on to me and I got it!

That’s so funny that you remember the rate!

I wanted a feature on my résumé, so I was happy to get it even though the pay was what it was. I remember that it was scheduled for seven weeks but took 12. And then, you know, you meet people and if they’re working on something, you get a call and you call people as well. The work started to be steady, so I borrowed some money and bought my own basic kit.

There’s a point on IMDb where your documentary credits stop for a couple of years and the credits are for scripted projects. I guess your approach worked.

I did this freebie short called Scene Six, Take One that people liked. They were able to raise enough money to turn it into a feature, which became the cult classic Living in Oblivion, directed by Tom DiCillo. That led to me working with Tom on four films and I worked on some Ed Burns films. I became one of the more noted nonunion mixers in the NYC area—doing a lot of indies. I wanted to join the union so that I could work on larger projects and because I always believed in the mission of unions, so I joined Local 52. I then ended up at the bottom of a big pond! (Laughs)

I bet you’re glad you picked up the phone that day!

Definitely! You never know where life will lead you or where opportunities will come from. It was great to be able to work on a project that had such a huge cultural impact, not to mention just being a fantastic show—one of the greatest in the history of TV.

That series brought you and the sound team a lot of deserved attention through the multiple Emmy and CAS Award nominations, including a CAS Award win and an MPSE Golden Reel. Your firsts! And now we’re talking because of accolades for another series. How did you end up on Maisel?

I had mixed a couple of films directed by Tamara Jenkins (The Savages, Private Life) and edited by Brian Kates, who was also cutting the pilot for Maisel. He actually told them that they should hire me. It’s another example of why a good relationship with post is so important!

Tell me about the series.

It is so much fun. I feel very grateful that I landed this show. It’s not totally uncommon for TV shows to lav everybody, place three cameras, and shoot everything, including rehearsals just to get it done. Here, we shoot each episode like a Technicolor MGM movie musical; taking the time to set up and make sure all performance and technical aspects are done well. And it’s big, too. With some of the bigger musical numbers combined with so many talkers while shooting it as “oners,” we’ve had a six-person sound department more than once.

How about the sound approach?

Amy (Sherman-Palladino, the show’s creator) wants all of the music performances to be prerecorded in the space that we actually shoot in. If there’s a band, for instance, either my team or Stewart Lerman (music producer) will come in and record before the shooting crew’s call. Then we’ll hand the tracks to our Pro Tools guy, Egor Panchenko, to play back during the
shooting of the scene. They want things done right. Last season, we had one scene with 14 talkers, 20 earwigs, and a band. I even brought in a second mixer to help. This show’s nuts. It’s the most challenging series but it’s the best and the work pays off—it’s all up on the screen.

At the start of our conversation, you mentioned that today’s shoot was one of the most challenging of your career. Can you reveal a little?

Well, I do things on this show that I’ve never done before with many of the biggest challenges due to the extensive use of single shots for large cast, multi-page scenes with musical cues mixed in just for fun! And while I can’t say too much, Midge (the main character played by Rachel Brosnahan) is going on tour and it will be big.

Let’s talk gear, then. What are you using?

I’ve used the same Audio Ltd. wireless for 25 years and they always sounded great. I’ve had boom ops that are shocked with the quality of the wireless and have even said how much it sounded like they were cabled. They have a great beefy, warm sound. However, with the loss of the 600 MHz band and shifting spectrum, and Maisel being so big, I needed more mics and ended up moving over to Zaxcom. Interestingly, I may have been the second mixer in New York to own a Deva II way back in 2001.

I now have a full complement of 12 wireless with their RX-12. I have a Deva 16 recorder with the Mix-12 control surface for now but I’m looking at their new Deva 24. I also have a Fusion 12 when I have to do a bag rig. The ZMT transmitters are great and saved me today when a source went way out of range since they record while they transmit. Plus, they are so tiny. Our female leads love them since they’re much easier to hide. I’m also digging the ZAXNet stuff.

**What mics do you like?**

On *The Sopranos*, I exclusively used Neumann KMR 81’s and 82’s. I always had Schoeps CMC’s, as well. However, I once sat in on a show for a week and they were using the CMIT and I was sold. So now I have two CMIT’s. For lavs, I’ve always loved Sonotrims. I know I’m a little bit of an outlier, but they are really easy to hide with some types of clothing because they lay so flat. They’re also open sounding and blend really well with Schoeps. I will also use Sanken COS-11’s on ties because nothing works better for ties. I also keep some Countryman B6’s on hand in case I need them because, as I like to say, “You don’t wire the actor—you wire the clothes.”

**Tell me about your crew.**

My crew is great. Our boom op is Carmine Picarello, utility is Spyros Poulos, and Egor Panchenko is our Pro Tools Playback. I’m not a “top down” mixer; everyone has insight and value. As mixers, we tend to be isolated. So, I like to get the insight from boom ops and utilities who have passed through and worked with other mixers. I really like when it’s a collaborative project like this, as it’s always more gratifying.

**DAVID BOULTON: ADR Mixer**

David Boulton is a New York City-based ADR mixer with 30 years of credits across numerous films. In addition to winning the CAS Award for this project, David also won in our Documentary category for his work on *Free Solo*.

**Are your parents or other family in the industry?**

My aunt Dagmar was a big actress in the 1950s and was even on the cover of *Life* magazine. We lived with her on Central Park West when I was young and there were always entertainment professionals around like Milton Berle, Marlon Brando, Frank Sinatra, etc. Plus an assortment of colorful New York City characters.

So “Uncle Miltie” was actually like your Uncle Miltie!

Yes! And then when I was a little older, I was friends with Steve Rubell, who became known for *Studio 54.* He was like a member of the family for a while. So, I was always hanging out with a crowd of eccentric entertainers. New York City in the 1970s was something crazy.

**Did that interaction lead to you getting into the industry yourself?**

No. We were really just partying and I wasn’t going anywhere and realized that if I don’t start focusing on something, where am I going to be in five years? So, I joined the Navy.

**Wow! It’s very impressive that you were cognizant of that and took a big step to remove yourself from that environment.**

It was one Sunday morning, like in that Rolling Stones song “Coming Down Again.” I walked by a recruiter’s office and signed up.

**What did you do in the Navy?**

I learned avionics, which is the electronics in planes. Through luck of the draw, I got stationed in Key West, so that wasn’t too bad. (Laughs)

**What did you do when you were discharged?**

I came back up to New York and worked for my stepfather in construction.

This has got to turn somewhere. How did the Navy and construction work lead you into our world of sound?
Did you go through a training or shadowing period since you were part of the engineering team?
Actually, no. In order to shadow or train, I would have had to take a pay cut, which I couldn’t do because I had a family to support. But Bill Nisselson loved ambition, so he had me cutting my teeth on student films, low-budget projects. Of course, I’d asked the established guys to train me, but it was produced by and starred Al Pacino. I pulled it off and Al and I have been working together ever since.

How did you start working on the larger budget films?
Sound One was always good with accommodating projects that had little or no money in return for being a strong contender to get the post work when projects with good budgets came in. So, I’m about a year, year-and-a-half into mixing ADR, and I was booked on this low-budget, 16mm project called *The Local Stigmatic*. Now, we didn’t know this when the booking came in, but it was produced by and starred Al Pacino. I pulled it off and Al and I have been working together ever since.

That’s a heck of an unknowing jump up from student films!
It’s always, “What have you done?” And if you say you’ve successfully recorded Al Pacino, that gives potential clients lots of confidence. So, I just took off from there, especially since Sound One was the main place for cinematic post in NYC in the 1990s through the 2000s. It allowed me to work on a lot of great projects. Since we had all the cutting rooms in the building as well, in between sessions, editors, actors and I would be roaming through the halls and bumping into each other. I used to call these encounters “Hollywood Moments,” with these incredible directors—Mike Nichols, Martin Scorsese, Nora Ephron, etc. A lot of fun times and memories.

You’re now with C5. How did that come about?
C5 handled supervising sound editing and were usually on the same projects I was on anyway, so it’s like coming full circle. They built an ADR room, which is the second largest in NYC. We have everyone in one room and it’s a really nice and comfortable setup. And we’re working with our longtime clients, so it’s great.

Being in the business for a couple of decades, how have you seen technology affect what you do?
We had the first 4-track mag recorder (“full coat”) at Sound One. It allowed four selects. We would then transfer to the single track of mag (“stripe”). We eventually got to 6-track recorders and I’ll always remember Pacino saying, “How many tracks do we have?” Whatever number of tracks we had, that’s how many takes he’d do in a row.

Now, we record to and work in Pro Tools and can keep going as needed. Paul Hsu, who is one of the C5 co-owners, is a Renaissance man and, in his spare time when he wasn’t sound designing or mixing, designed the software we’re using for cueing called Concierge, which is elegant and intuitive.

Have you seen changes in schedules over the years as well?
In the old days, a lead actor would have two to three days of ADR. Now, it’s usually a few hours or a single day. A lot of this is because of advances in technology on the production side with multitrack recording on set and plugins that can help in post.

For *Maiul*, we normally work two to three days per episode. A lot of what we’re doing is rewrite adds of dialogue that Amy and Dan have written to maintain the rapid-fire banter that’s a hallmark of the show. In addition to principal ADR, we also record loop group for the show. So if we’re working on a comedy club scene, we won’t rehearse anything—we record the group’s reactions the first time they see the bit. We find that it sounds more natural. Amy and Dan also write specific lines on the show. So if we’re working on a comedy club scene, we won’t rehearse anything—we record the group’s reactions the first time they see the bit. We find that it sounds more natural. Amy and Dan also write specific lines on most of the episodes for loop group.

You also won the CAS Award for your work on the documentary *Free Solo*. Can you tell us a little about that project?
Directors Jimmy (Chin) and Chai (Elizabeth Chai Vasarhelyi) are New York-based, so it was cut here. They brought Alex Honnold, who the movie follows, in. The challenge with Alex and ADR was that he isn’t an actor and is also relatively shy. Deborah Wallach, the sound supervisor and ADR editor, and myself, were able to get him relaxed and comfortable. We tried to do some extra breathings, exertions, and things like that. However, Alex is in such good shape since he climbs mountains, that it was totally unnecessary. We did four sessions with him but, in the end, we only needed to record a little here or there for the usual reasons. The biggest challenge was matching the narration that Alex did at various times on location instead of traditionally in a recording studio. Less is more with ADR.

How do you relax when you’re not behind the console?
I enjoy hanging with my family, my grandkids. We like to spend some time in Florida.
Like in your Navy days!
Yeah, but I get to relax!

**GEORGE LARA CAS:**
Foley Mixer

George Lara has been working in the industry for more than 30 years. He is a multiple CAS Award nominee and won an Emmy for his work on the TV series *Boardwalk Empire*.

I see from your bio that you grew up in New York and, after attending Brooklyn College, went to the Institute of Audio Research to study audio engineering with the intent of working in music—which you did. How did you get into the sound or picture side?

In 1985, I was working as an assistant engineer at Red Apple Studios for Larry Harlow, who is best known for the Fania All-Stars and working for the Fania record label. After about a year of being there, the studio was closing down, so I started looking elsewhere. I was told that there was a music recording studio, Regent Sound, on the second floor of the Brill Building, at 1619 Broadway. So I went there to ask for employment, but they were not hiring at the moment. The wonderful receptionist told me to go up to the eighth floor, where Sound One was located.

The receptionist literally pointed you in the right direction!
Yes, she did! Jay Rubin (who would go on to be studio manager, among other jobs) was the person I met at the time. He told me that everybody at Sound One started as a messenger, regardless of professional or school background. He also mentioned that it wasn’t a recording studio for music but a studio for sound for movies. That was something I hadn’t even thought about and really sparked my interest because I had always been fascinated with movies since I was a kid.

**Once you were hired, how was the transition from the music side to the picture side?**
I loved working in music, and still do, but this was like a new ballgame for me with the different areas. The staff at Sound One guided me and gave everyone opportunities to advance. So, I moved up to being a projectionist during the day and, in the evening, I worked as a transfer engineer. After a while, I was introduced to the Foley, ADR, and the mixing stages.

**What led you to focus on Foley?**
Foley is my passion. I was lucky to learn from re-recording mixer Michael Barry CAS and work with a couple of amazing Foley artists like Elisha Birnbaum, founder of Sound One, and my partner Marko Costanzo, whom I’ve been working with for more than two decades at C5, Inc. I’m also very grateful and humbled to continue to collaborate with outstanding directors, sound supervisors, re-recording mixers, and editors on both coasts.

Tell me about your work on *Maisel*.
Since it’s a period show, the Foley has to be tastefully recorded. We need to be aware of the shoes and surfaces, for instance, because they’re very specific. Also, the clothes of that time were made of different materials than we typically find today. We usually record an episode a week across two days. Foley supervisor and editor Steve Visscher does a wonderful job spotting the sessions efficiently so that we can meet our deadlines. We record cloth rustle and footsteps on the first day and then do props on the second day. Steve will then take those recordings and edit and prep them for sound supervisor Ron Bochar to mix and do his magic. Production just started shooting Season 3 and we can’t wait to get started working on the episodes. It is a wonderful crew and everyone is a pleasure to work with.
What’s your setup?
We use Pro Tools as our recording and editing platform with Millennia Mic preamps. We use various shotguns and other microphones that are set up around the room so that we can move from sound source to sound source. That gives us the advantage to record efficiently with each sound being tailor made for a specific scene or shot. We cover all similar surfaces at once, like wood floors, linoleum, etc., for all the characters and then move on. The key is to make sure every sound blends naturally into the mix.

You were also nominated this year in our “TV Movie or Limited Series” category for Escape at Dannemora. Any recollections of your work on that project?
Oh, yes. We were asked by sound supervisor Jacob Ribicoff to record all the intricate sounds for the long sequence where Paul Dano and Benicio Del Toro escape from prison. The tricky part of the escape was that it took place through an air-conditioning system. It was a very enclosed, suffocating type of sound that we had to generate. Between Marko and myself, we recorded a couple of different approaches that were actually used throughout the scene. That was fun.

What do you like to do when you’re not in the studio?
I still love watching movies and TV even though I work on them daily. I love to learn and get ideas from listening to other creatives’ sound design and the work of other Foley teams. Now that it’s getting warmer, I plan on spending some quality time with my family in the outdoors.

STEWART LERMAN:
Scoring Mixer

Stewart Lerman is a two-time Grammy Award-winning producer with a long history of music engineering and producing.

How did you get started in the recording industry in New York?
I grew up in the Bronx, went away to college, and came back. A couple years after returning, I was in a band with a childhood friend, Andy Ebberbach, who spent some time in LA building recording studios. We went to the AES Show, I think it was in 1984, and saw some of these smaller, more affordable consoles and tape machines. We bought a 16-track Fostex 1/2” deck and moved into a space where all the music lofts were on 30th between 7th & 8th Avenues. In 1985 in midtown Manhattan, unless you had major funding, it was difficult to find affordable recording studios. But we started doing publishing demos for some major labels and those relationships grew to where they were having us record for actual label releases. None of it was intentional, we just liked good music and one thing led to the next.

Were you engineering on some of these projects?
I was engineering and that led to me producing records in the 1990s. As a producer in the ’90s, the budgets allowed for you to hire an engineer, which I preferred. However, toward the end of ’90s as budgets got smaller, I went back to being a producer-engineer.

How did you get involved with the music side of film and TV?
The industry was changing in the late ’90s as a result of Napster and all that stuff, so some of the artists I was working with were getting involved in soundtracks. I’d be hired to work with them on something for a movie. I just followed the people and the art and that led to me doing work on music for film.

So, your skillset and relationships with artists led you to the movie screen?
It did, but one of the most significant things was that I started working with Randall Poster. He is one of the preeminent music supervisors and played a pivotal role in bringing me into the film world as a full-on music producer for film and TV.

Stewart Lerman at Electric Lady Studios

Was there a project that you worked on where your involvement made you think, “Man, I have made it in this area”?
I would say Scorsese’s The Aviator is when I felt like, “Wow, I’m really here.” We were recording full-on big band and orchestral music and then having the actors perform to playback. It wasn’t my first playback, but it was the first project of that scale. It was just massive. You realize that the music you are producing is driving the camera. Without this music and this tempo, the scene might be different. Had I known that beforehand while recording, I would have crapped myself! Seeing it happen on set was amazing and a formidable moment in my understanding of what I was getting into.
Well, you came out of it with flying colors!
I feel blessed with being able to do it. That led to working on major movies. I guess I was eventually trusted with this responsibility on a number of projects, which put a fire under me to really make sure I had all my ducks in a row and better understood film and cinema as a craft. So I studied the process. Not necessarily the audio only, but the whole process.

The details of filmmaking are unbelievable. When making a record, details are different than in cinema. In cinema and TV, a big part of the job is paying attention to the cinematic details; following every piece of communication and making sure you’re communicating as well.

A number of the projects you’ve worked on have been centered around different eras. From a technical perspective, how do you approach these types of recordings?
Let me start with Boardwalk Empire, which was set in the 1920s. For the series, which lasted about five years, we recorded more than 400 songs. All of them had to be interspersed with other original recordings and, obviously, we wanted to make sure the transitions weren’t noticeable. While it makes sense to try to use period-accurate recording gear, the most important variable is “who” you put in front of the microphone. You need specialists who can emulate an era; a specific type of vibrato, or play with a specific vintage instrument, etc. If you have that, then the technical part becomes less difficult. That said, if I can be in front of an 80 series Neve and have some tube and ribbon mics, I’m usually in a pretty happy place. (Laughs)

Tell me about working on the music for Maisel.
Amy (Sherman-Palladino) and Dan (Palladino), the show runners, are really music-savvy people. One thing they don’t want to do is use music gratuitously. It’s sort of a theatrical approach where music is used for a specific lyrical purpose. That’s what really got me interested in working with them because the music is used to tell part of the story. Also, the show takes place during a great time for music; the late 1950s and early 1960s. There’s jazz overlapping with doo wop and rock-and-roll and folk music. It’s such a diverse period.

(Production mixer) Mathew Price was telling me that, when a scene has on-camera musicians, they like to record the music in the actual location.
Yes. We shoot a lot of scenes in nightclubs or bars, for instance, and we are recording performances in those set locations. The directors love to feel the space we’re shooting in. We bring in a recording crew and set up a full console and speakers and get as far away from the sound source as possible so we can have isolation and make assessments. We get a pre-call, and I get, maybe 7 a.m. to 9 a.m. to capture the performances accurately. I have to be done at 9 a.m. because an entire film crew and actors are coming, there’s no “play” room. And then they do playback during the shoot of what we recorded earlier in the day.

What do you like to do when you’re not in the studio?
I really enjoy cycling. NYC has become really bike-friendly (well, not for pedestrians). Cycling is a great way to rejuvenate. I also like to cook and, of course, spend time with my family. The odd part of this job is that the thing that came from recreation, making and recording music, became the thing I get to do all day long. And the people I wanted to hang with outside of work, I’m now hanging with at work.

RON BOCHAR CAS:
Re-recording Mixer

Ron Bochar has been involved in the sound-for-picture industry for more than 35 years and is a co-founder of NYC’s C5, Inc. This is his second CAS Award win, the other is for Angels in America, which also won him an Emmy. He received an Oscar nomination, CAS Award nomination, and Golden Reel nomination for his work on Moneyball. Additionally, Ron won a News & Documentary Emmy.

Did you play a musical instrument growing up?
I was a frustrated teenage guitarist who couldn’t seem to get past “House of the Rising Sun,” despite my guitar teacher’s best efforts. (Laughs)

What did you focus on in college?
I grew up in Ohio and went to Ithaca College in Upstate New York as a TV and radio major. They had a really cool television department where students were part of the crew for programs that would air on the local PBS affiliate. I was really interested in doing work in the field, but the portability of equipment in the late 1970s was non-existent; it was just too big and cumbersome. However, they did have a small cinema department with about a dozen students. The program had a real strong bent toward industrials and documentaries because none of the
professors had connections to the entertainment industry—which was mostly in Hollywood. I switched my major to cinema and had a lot of exposure making industrials and documentaries, where I had to shoot, edit, do sound, etc., myself.

**Did you go to New York City after graduation?**
I actually ended up working for this production company in Buffalo that made all these industrials. This is the 1970s, so we shot on film for companies like hospitals with topics like “How to Put an IV In”; informative and educational things like that.

**How long were you there?**
About six months. While it was good practice and there were some interesting gigs, at that age, I couldn’t see spending my life there working on that type of content. So I moved to NYC.

**Where did you go in NYC?**
I connected with a guy who made movie trailers, Michael Spolan. He was a great guy but said, “Sorry, I don’t have any work where I’d need you right now.” I looked for work in the city for about six weeks, made some contacts but couldn’t find any. I decided to move to LA and see what I could find there.

**You’d assume there would be more opportunities at that time in LA.**
Yes. I drove to LA and stayed with some friends for a little. While I was looking for a new place to stay, my car got stolen! To be in Los Angeles without a car, as we all know, isn’t going to work. So, in a fit of frustration, I headed back to Ohio.

However, while I’m in the air flying home to Ohio, one of the contacts I made in NYC called my parents’ house, which was the contact number I gave. My mom picks me up and says, “There’s this company in New York called Madison Films that wants to offer you a job.” So I took the insurance payment on the car and moved back to NYC.

**That is nuts! The timing is incredible.**
I started with Madison Films, but Michael, the trailer maker that I met earlier, called and said his assistant moved on to something else and he had an opening. So, I started working for Michael in 1980. Now, he was the kind of guy who would cut these wonderful trailers and, at the end of the day, say, “Alright, now you finish it,” and leave! And I would be there going, “What?” He’d tell me to finish them, add some sound, show him what I could do. Then he’d come in the next morning, give me feedback, and we’d have to get them ready for the mix.

**They’re telling a story in a couple minutes visually and aurally. Did you have experience with trailers?**
No! And I hadn’t done sound editing on that level. With trailers, you have to try different things and see what works in the context of the film’s narrative.

**Baptism by fire!**
It really was. Michael had a relationship with (director) George Romero, doing some of his trailers. George was hired to direct the movie adaptation of Stephen King’s Creepshow and he hired Michael as the lead picture editor. As a result, I became an assistant editor on it. That was my first ties with someone in the entertainment industry outside of trailers and my first feature.

**So, your first film credit is as an assistant picture editor? How did you get into the sound side of things?**
Once the picture editing was done, Michael went back to New York; we were working in Pittsburgh where George is from. George asked if I’d stick around to cut sound and get it ready for the mix. I did and that helped me to make more contacts.

**Did you go back to working on trailers after working on the feature?**
Michael was scaling back from working in the industry, so I went out to find some work. I found some jobs cutting sound, supervising Foley, and took a job at another trailer house so that I could get into the union. My intent was to be a picture editor but I realized that I was being paid to do sound work, I was in the union as a sound editor, I wasn’t getting a lot of picture offers, and my wife and I were thinking of starting a family. So I made a “sound choice,” shall we say to focus on sound.

**Do you feel like your picture editing background helped you adapt to working in sound?**
Yes. I decided to approach sound as a picture editor approaches their editing. In the early ’80s, sound was often under the picture department and was often considered “cleanup” work. This could be seen in my being hired to cut sound for the Creepshow project even though I didn’t really have a lot of experience in that area. I wanted to present what I thought would be the best sound for a particular project and not just involve the picture editor but involve the director as a picture editor would. While there were other sound professionals using this approach, it wasn’t really common.

**How did you land your first job as a supervising sound editor?**
It was for a film directed by Alan Pakula called Orphans. I had worked with the picture editor, Evan Lottman, and he knew me as the “Foley guy.” The sound budget for Orphans was a little lower, even though it was still union. Alan called and said, “Do you think you can do this?” Now, I had never cut dialogue for a film or done anything beyond some Foley and sound effects work but I said, “Sure, I do it all the time!” The key was that I surrounded myself with professionals who would teach you as well. My re-recording mixer was Lee Dichter, so that totally blew my mind.

**Moving ahead some years, you went on to help find the facility C5, Inc. What influenced that?**
Skip Lievsay CAS, Bruce Pross, Phil Stockton, and myself started the company 30 years ago this May because we wanted to get into digital editing systems but no facilities in town wanted to invest in that technology. We’d record Foley directly into a Synclavier Post Pro and cut sound effects on the Synclavier. We’d still do dialogue on mag because the digital
editing systems weren’t really set up to do that level of editing. While we transitioned through other DAWs, such as Sonic Solutions, the main driver was the desire to work digitally and have greater control.

Looking through your IMDb list, I notice that you have shared credits for supervising sound editor AND re-recording mixer, starting with the 1993 movie The Pelican Brief. While this is more common now, that was way ahead of the game back then. Tell me about that.

When we created C5, in addition to wanting access to technology, we wanted better control of our sound. Back then, you’d cut effects and then show up to the dub stage with a cue sheet and it might show something like: track one is a door, track two is the door creak, track three is the door rubbing on carpet. There’s three tracks for the mixer who is seeing everything for the first time. Sometimes they’d put everything up and sometimes they wouldn’t. We thought, “Why not just bring the build that makes the full ‘door sound’?” since that’s what we were able to do with the Synclavier. So we started to bring in fewer elements because we would premix our builds.

I worked with legendary re-recording mixer Richard Portman for the first time in 1990 on Presumed Innocent. I brought in my tracks and we sat down to talk about the effects. And he goes, “I’ll take care of the dialogue and the music and you take care of the effects. You cut the stuff so you mix the stuff. You can mix, right?” That was my entrance into being able to sit at a board with a mixer. Richard and Lee (Dichter) were both open to it. It took a couple years for management to be okay with the double credit, but it came around. Skip Lievsay, to me, spearheaded the whole notion of editors being able to also mix.

Let’s talk about Maisel. Word from your colleagues is that the show runners Amy (Sherman-Palladino) and Dan (Palladino) weigh sound as an extremely important part of the series.

Very much so. They treat it like an hour-long feature in a condensed form. The first thing Amy told me was that she didn’t want the show to sound like a boring sitcom done on the set. She wanted it to sound rich, full, and busy as all hell, even though she’s aware that not everyone will hear everything we’re doing with sound because the dialogue will be on top of it. If you mute the dialogue while you’re doing a mix, you hear all this lush, supportive material. If you just have the dialogue, the soundscape is very dry and it doesn’t have the same kind of life. They know what they want on their show and they’re giving us the time to do it in a comfortable fashion. They create rhythm and they create cadence in how they write their shows and we get to do our part. It’s hard to ruin something they’ve written.
Though the home base for *Mozart in the Jungle* is New York City, this particular episode was shot on location in Tokyo. This presented quite a few differences for much of the sound team. First of all, Tokyo isn’t as noisy as New York City, where wireless lavaliere mics are always required for exteriors. This means the episode was able to make better use of the more natural-sounding boom mic. However, the problem of the “wide and tight” multi-camera shooting style of many US productions was a frequent frustration for Tokyo local production mixer Harada. “I always use the boom mic as much as possible. Sadly, we had three cameras that were always going wide and tight at the same time. So I’m guessing post had to use the lav mics more than 80 percent of the time.”

The more realistic sound of the boom mic is apparent in the natural-sounding dialogue when it was possible to use, so a lot of credit goes to the boom op. Even when the lav mics were used, the dialogue was nice and crisp. Extra credit goes to the production and post-production mixers, but also to Harada’s utility person who wired the actors, and to the post team for smoothing and blending.

When asked about challenges in the Tokyo location that were different than the New York home, the unanimous answer surprised me: cicadas. Those big ugly noise-making flying insects that can make recording dialogue impossible in an otherwise serene forest. Being from Tennessee, I know cicadas very well and, evidently, Tokyo has the same curse.

ADR mixer Patrick Christensen recalls, “The one difference I did notice from the locations in Japan [compared to New York] were the different types of insect and animal life background noise that had to be contended with, much like shooting in the South here in the US. The co-supervising sound editor and ADR supervisor Peter Carlstedt did an excellent job of keeping what they could and replacing only what was truly necessary.” Production mixer Harada adds, “Keeping the original performance was very important to the production, and it was difficult for the New York ADR team to record the cast in Japan.” Re-recording mixer Chris Jacobson adds, “So, cicadas and other wildlife sounds were wild-tracked to smooth out changes in the background and mixed in to help the original dialogue tracks.”

When Foley mixer Gary DeLeone was asked about this particular episode, he recalled the footsteps in Tokyo being more of a challenge. “Footsteps in New York tend to be shoes walking on pavement outside or walking on hard-surface floors inside.”

As in other episodes of *Mozart in the Jungle*, the music theme of the show required Foley to the sounds of musical instruments going into and coming out of their

**MEET THE WINNERS**

**CAS Award Winner – Television Half-Hour**

**Mozart in the Jungle**

“Domo Arigato” by Glen Trew CAS

When the title begins with “Mozart,” the show is certain to be based on music. This winning episode from Season 4 of *Mozart in the Jungle* titled “Domo Arigato,” begins not with dialogue, but with music—for a full 90 seconds. And this intro is not a prerecorded montage or lip sync as would be customary, but music that was recorded live, on the set, just as if it were dialogue.

Re-recording mixer Andy D’Addario (music and dialogue) recalls, “We actually did very few prerecords in our final [4th] season. The opening sequence of this episode was live.”

True to how music would have been heard in Mozart’s time, the opening music was all acoustic, with the instruments and ambience recorded in their natural glory. In short, it sounded like it looked, which is usually a goal, but difficult to achieve. An excellent beginning for a show built on the love of music. A departure from Mozart’s time is that this opening music is of a traditional Japanese ceremony using unfamiliar instruments: ancient double-reeds, flute, large drums, hand claps, and the chant of a Shinto priest.

Kudos to production mixer Ryotaro Harada for recording this scene with multiple iso tracks that included the natural color and ambience of the instruments, voice, and space. Also a large kudos to re-recording mixers Andy D’Addario (music and dialogue) and Chris Jacobson (background and FX) for employing those tracks in the final mix in a way that served the story so well. Additionally, a great congrats to the ADR mixer Patrick Christensen and Foley mixer Gary DeLeone who carried out their responsibilities with masterful distinction. These subtle but significant nuisances don’t happen automatically; they are the result of experience, talent, effort, and dedication to our craft.

**Re-recording mixers Andy D’Addario and Chris Jacobson**
cases, cases opening and closing, and the sound of the string players “applauding” by tapping their bows on music stands, etc. DeLeone explains, “We always try to approximate sounds accurately. But because this show is about music, we want to get these sounds exactly right, so we actually acquired instruments and instrument cases to recreate these sounds.”

Another notable scene that required Foley relating to music was in a Tokyo arcade. The actors were playing an arcade game where the object was to whack objects as they popped up in rhythm with the music. DeLeone arranged to have the music track at the Foley stage because it was assumed it would help the Foley artist Laura Macias make the “whack” sounds in sync with the picture. But part of the gag of the scene was that the actors are often out of sync with the music, causing them to miss. So, ironically, the music track was actually miscuing Macias, who soon decided she would just use the visual cues.

An interesting twist in this year’s award is that New York-based production sound mixer Thomas Varga CAS, who was the regular mixer during the show’s four seasons and has an Emmy to show for it, was not taken to Japan due to travel budget. As a result, he did not work on this particular episode, and therefore, was not mentioned on this CAS Award. It’s fair to say that a single episode of a TV series is rarely if ever solely responsible for a show’s award nomination and win, as the notoriety of a television series is developed over time by all of its episodes. In no way does this take away from the work of production mixer Ryotaro Harada, whose outstanding work is clear throughout the winning episode. That said, acknowledgment is certainly in order to Varga for his years of contribution to this winning series.

When asked what the CAS Award meant to all of these mixers, the responses were all the same: There are other awards in television and film production, but CAS Awards are the only ones nominated and elected exclusively by the top sound mixers in the profession, therefore, they are the most meaningful and humbling. They all have this year’s award proudly displayed in a place of prominence in their homes.

*Mozart in the Jungle* has all the qualities a CAS Award-winning TV drama should have: Challenging and artistic production value, technical excellence, and a dedicated professional crew working hard to make it all seem easy.

A well-deserved congratulations to all for your win!
operator for 20 years, and the move to mixer was daunting. Working on that show opened up other opportunities that eventually led to American Crime Story.

Any particular mentors help you get there?
I would say Petur Hliddal and Karl Fisher had the biggest impact on me. I was trying to transition from nonunion to union when Karl recommended me to Petur. Those two great gentlemen gave me the foundation for how I approach the job today.

Was there an overarching directive from the powers that be/the show runner regarding the approach of the show’s sound?
Yeah, we don’t loop!

Ha! Was there a personal approach brought to bear after hearing about the show for the first time?
My approach to the job is that I like to maintain a low-key presence. I only press when shooting performance angles (i.e., close-ups). Then I’ll be cognizant of the needs of the production; if the sun is going down and we need a wide and tight, I’ll encourage the production to shoot them together. My crew is here to serve the best needs of the show, not the best needs of our department.

I took note while watching the show that some of it appears to have been shot right in the heart of Miami’s South Beach, an extraordinarily busy area. What were the particular challenges shooting both on the beach and on Ocean Drive?

CAS Award Winner – Limited Series
The Assassination of Gianni Versace
“The Man Who Would Be Vogue”
by Patrick Spain

FX’s true crime anthology American Crime Story: The Assassination of Gianni Versace (Part1) “The Man Who Would Be Vogue,” is the story of just that; the unforeseen murder of Gianni Versace on the front steps of his mansion in South Beach in 1990. Only in this retelling the story is told in reverse. The show begins with the crime and backs into the unhinged world of the killer.

The team that brought 1990 back to life and exposed the inner struggle of the disturbed Andrew Cunanan was production sound mixer John Bauman CAS, re-recording mixers Joe Earle CAS and Doug Andham CAS, ADR mixer Judah Getz CAS, and Foley mixer Arno Stephanian.

JOHN BAUMAN CAS:
Production Sound Mixer

You are from Southern California, and it sounds like you had family in the business. Is that how you started?
My grandfather and two uncles were in sound. I remember visiting sets as a child and being awed by it all. I never thought I’d be sitting in the mixer’s chair.

Well, that certainly seems like it piqued your interest. How did it begin for you professionally?
In the early ’90s, direct-to-video erotic thrillers were all the rage. I started as a boom operator making $50-$100/day on nonunion movies like Victim of Desire and Turn of the Blade.

What was your first big break?
It was when Sean Rush called me to mix second unit on Season 1 of American Horror Story. By that time, I had been a boom
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The wind was brutal. We couldn’t put large wind gags on the lavs because the costumes were so minimal. Our wonderful wardrobe department worked with us to create low-profile wind rigs that worked out beautifully. On Ocean Drive, our man in South Beach, Kevin Cerchiai, worked magic with our location people to get nearby nightclubs to minimize their loud music. He was invaluable. Thankfully, the production paid to redirect traffic, so we owned the street.

Was there anything unusual about this show in comparison to the multitude of shows you have worked on over the years?

Our lead actor, Darren Criss, was absolutely unique. One example was when we shot in a tiny one-bedroom apartment on location during the hottest part of the summer. The whole crew was crammed into this living room, stepping over each other, trying to light, set up cameras, move set dressing, and sweating the entire time. Needless to say, morale was suffering. Rather than go to his nice, air-conditioned trailer, Darren sat at this tiny upright piano that was stuck in a corner, and started taking requests. He’s a brilliant singer and musician. He’d remake the lyrics into something funny about a crew member or the show. It made all the difference.

Great story! Is there an important aspect of the show’s sound we haven’t talked about?

I would love the CAS to consider including the entire production crew for the award. Mixers are only as good as their crew.

JOE EARLE CAS: Production Sound Mixer

Where did you grow up?

I was born in Washington, DC, but my family moved to Potomac, MD, when I was 10 years old. At the time, it was a hotbed of doctors, lawyers, and Indian chiefs.

Don’t I know it! My father was one of those lawyers, next door in Bethesda. Small world. What did you want to do when you “grew up”?

I was studying music, trying to learn every percussive instrument I could, but the lure of photography and cinematography drew me away.

So how did you get into the industry?

I pursued film school at USC and never left the city.

How did you further develop your understanding of the sound industry?

Working at Todd-AO during its heyday was special. The company was filled with legendary mixers and editors. I could walk into any stage and sit down and watch the best of the best mix their films.

What kind of directive did you get for this project?

Ryan Murphy’s soundtracks are usually thinly built out in picture editing. Our sound supervisor, Gary Megregian, comes onboard early to supply the picture department with certain design elements as they edit the show. Once they turn it over to us, we begin to fill out and shape the shows so that transitions, environments, and design elements really help push the story along.

How did Mac Quayle’s epic “Adagio in G minor” arrive to you? Were you forewarned that the show would begin with a nine-minute classical cue?

I was aware of the beginning classical piece coming my way. Mac had originally done the score without live instruments and we mixed against that. There is only so much you can do with a limited number of synthesized stems. When the real instruments arrived with splits for the cellos, violins, and brass, I was able to dig in and get warmth in the low strings and space and placement in the high strings.

I’ve already asked John this, but since you mix his product, I thought it appropriate to get your perspective. It appears the show was shot right in the heart of Miami’s South Beach, an extraordinarily busy area. What were the particular challenges of mixing scenes shot both on the beach and on Ocean Drive?

John Bauman is one of my favorite production mixers. He is able to get a good level of dialogue even in the worst conditions. If I have enough level to work with, I can usually carve around to the dialogue without crushing it. I prefer to lean on EQ rather than rely on plugins. That’s not to say that I don’t use iZotope RX and Cedar DNS plugins to help, but I’d rather keep some of the noise in the track than get it so clean it begins to feel disembodied.

Is there anything you’d like to add?

I like to fill up all of the frequencies as we move along through a show. If a scene feels thin, I ask for more. If it feels too fat, I thin it out, which puts more pressure on me but inevitably, we get what we’re looking for.

Is there an important aspect of the show’s sound we haven’t talked about?

I think in TV we often overlook the collaborative effort of the sound supervisors, editors, and post producers. With schedules getting shorter and expectations getting higher, it would be impossible to arrive at a cohesive effort without the pressure we put on our supervisors.
DOUG ANDHAM CAS: Re-recording Mixer

Where did you grow up?
My dad was in the military, so I grew up all over the place. Born in Colorado, then lived in Chicago until I was 3, then Oahu, Hawaii, until second grade, then Hagerstown and Fort Meade, Maryland, through fifth grade, then, West Germany through seventh grade. Eighth and ninth grade were in Corona, CA. 10th grade was in Twentynine Palms, CA. 11th was in Colorado Springs, CO, and Mesquite, NV, and then 12th grade was in Santa Monica, CA. I went to Loyola Marymount University (LMU) for college.

Whoa, that’s amazing! What did you want to do when you “grew up”?

So, what brought you to LA?
I moved here to finish high school in California. After that, I went to LMU as a fine art major, but on my first day there while taking an orientation tour, I saw the sound studios and learned about the recording arts department there, and I decided to change my major. I knew that I wanted to work with sound and music as soon as I learned about their program. I hadn’t realized that was even a possible field of study. I had to apply and lobby to join the program because it was so small. I took a work-study job as an assistant to the engineer that maintained the sound studios there so I could learn as much as possible. I also DJ’d at the student-run radio station KLMU. I was accepted into the program my sophomore year and immersed myself in it as much as I could. It was great.

Did you start elsewhere?
When I graduated from college, I went and bought a studio directory and sent my résumé to as many music studios as I could. I really wanted to make records and work with musicians. I was very lucky to get a job as a runner at Larrabee Sound Studios in Hollywood. (Heavy metal band) Pantera was working in one studio, and Heavy D and the Boys in another, Madonna in another. Cypress Hill worked there, as did Death Row Records artists such as Snoop and Tupac. It was a great place to learn and gain real-world experience.

How about mentors? Was there a person who took you under their wing?
That first post-production studio was where I learned a lot. It was called Digital Sound Works (DSW). I got to do a variety of different jobs. I’d record Foley, I’d record ADR. I cut sound FX. I recorded books on tape. I mixed small independent features alongside my boss Galen Walker. He was the owner and he let me work on all these different projects and taught me at the same time. It was a great place to learn and gain real-world experience.

For this series, John Bauman didn’t seem to have an elaborate directive from above, did you?
We worked very closely with executive producer Alexis Martin Woodall in shaping the sound, as we always do on Ryan Murphy’s projects. This series was unique in the sound approach in that the story was told in reverse, with each episode taking place in a different place.

This first episode starts with the culmination of Andrew Cunanan’s murder spree and with the actual killing of Gianni Versace. So, the sound of it is starting with the penultimate moment and then works backward. The opening montage was carried by Mac Quayle’s operatic score and was meant to convey the grandeur and luxury of Gianni Versace. It was huge. Sound FX were played as just textures here until it built up to the gunshots on the title card. From there, it was about keeping up the energy of the ensuing manhunt in the present and alternately creating a sense of reality and discovery in the flashbacks. When we were loud, we were very loud. But in contrast, we embraced the moments of quiet to help create a dynamic soundtrack.
For a show that is somewhat understated FX-wise, there seems to be a fair amount of design, mostly to illustrate the delusional nature of its villain. How do you approach those surreal or semi-real moments? It depends on the moment. For instance, there is a sequence with Andrew Cunanan where, along with the music, we just played a quiet wind when he enters his friend’s bedroom during a flashback to San Francisco. Just this wind helps make it disconcerting. In another instance, he is in the bathroom of a hotel after escaping the scene of the crime and we picked particular sounds to accent and heighten his headspace; the sound of him taking off his glasses and turning on the faucet in a deep reverb. But in contrast to that, we used multiple layers to create Donatella’s headspace with a crescendo of cameras and voices when she is overwhelmed by the paparazzi upon arriving at her brother’s house after the murder. What is going on in the scene and what best supports the emotion of the story and characters at that point dictates how we approach it, how much we play or how little.

JUDAH GETZ CAS: ADR Mixer

Where are you from Judah?
I moved around a lot when I was really young, I grew up in Southern Oregon for the most part, in a little town called Ashland.

So you’re a West Coaster, but not really near LA. What brought you to town?
Before going to audio school, I was working with people with developmental disabilities as a caregiver/advocate and ended up getting really burned out and didn’t see myself climbing that managerial ladder. I’d sorta been playing around with audio software so I enrolled in audio school. Upon completion, I moved to LA to work in music but quickly found myself at a post house for film/TV where I discovered ADR, and I quickly fell in love with it.

I interned at a record label and then a music studio where I learned they were doing audio post for low-budget horror movies at night. I sat in with some folks, then jumped to a strictly post house where I became a Foley mixer, and from there parlayed into ADR. When I moved to LA, I really didn’t know much about ADR. My goal, though, was to do something I loved while getting to work with new, and different people. And be able to support my family and provide them some stability.

Anyone help you along the way, professionally?
Yes. Jeremy Balko. He’s my hero. He gave me so much of his time and expertise. I wouldn’t have gotten anywhere in this business without his support and guidance.

Very cool. I love to hear of people helping and mentoring others in our industry. For this episode, was there a great deal of ADR recorded?
As far as principal ADR, there was not a lot at all. Ryan Murphy doesn’t like to shoot a lot of principal ADR, which is testament to his attention to detail in pre-production. There was a lot of group ADR recorded. Lots of passes of beds, and individual lines of dialogue used to sweeten, and a good amount of specifics, such as reporters, police, efforts, and breaths.

ARNO STEPHANIAN: Foley Mixer

Where are you from?
I was born and raised in Tehran, Iran. I grew up in a small Armenian community and my family owned the first music store in Iran, established in 1945. I was really lucky to grow up in a family that appreciated music so much, even in the most difficult situations.

That’s incredible! What did you want to do when you grew up?
At first, I had a passion for woodworking and carving wood around age 7-10 and I wanted to become a woodworker! Then I started playing piano by ear at the age of 8 and tried to imitate my dad’s fingers as he was playing jazz piano. That started the fire for me in music. I started listening to many traditional jazz legends and started playing and transcribing their solos and chord progressions. By the time I was 11, I became obsessed with jazz! So at that point, I wanted to become a professional musician and have a band.

And how did you find your way into the industry?
I started by doing sound for student projects for free while I was still studying. After a few of them, I started to get projects that paid very little, here and there. One of the first paying gigs was an indie feature called Barrio Tales that I mixed in 5.1 and did some additional compositions for. Then after that, I started an internship in post-production sound.

Is there an event that you consider to be your “big break”?
There was a sound show at Disney that one of my instructors had invited me to attend, along with others, so I was very excited! It was a presentation about “Once upon a time” and how the sound layers were created to make Pinocchio’s storm scene play! After the show was over, I stayed to meet the people who worked on it. A few days after that, I had an interview appointment for my internship, which was at Post Creations. When I went there, I saw Kyle Billingsley—the same Foley mixer that was on that “Once upon a time” sound show presentation at Disney! And that was it! I knew that it was meant to be. Right after, I was chosen to be their new intern (Thanks to Nick Neutra and Kyle). I started working on that same show, cueing, and editing the Foley. I was lucky to start my career there and so grateful to have had the opportunity to work on great shows right from the beginning. This was my big break getting in the industry.
In terms of *The Assassination of Gianni Versace*, there seemed to be long periods of the show without a cascade of hard sound effects. To me, this means there must have been an opportunity for a great deal of Foley. Was that the case?

Yes, it was absolutely a show that required a good deal of Foley. From handling different materials of wardrobes, to dancing footsteps, to eating expensive sounding lobster dishes, there was a lot of Foley.

**Could you hazard a guess to the percentage of props vs. production FX?**

I think maybe 70 percent props and 30 percent FX.

**Was this an unusual show?**

The fact that the first episode started with the finale and the murder scene was already an unusual start. So, we had to bring our best game and the intensity of the sounds from the very first moment of the show because of its unique nature.

Our aim was to make it sound as natural as possible without exaggerating too much so that it can be used to complement the production sounds in a nice, subtle way.

**Is there any bit of kit (gear/software) you leaned on heavily to get results you were happy with?**

Yes, I constantly use the software Keyboard Maestro for my macros and shortcuts for doing things easily and faster. I have a certain setup that helps me move faster and more efficiently during mixing and editing.

**Is there anything you’d like to add?**

I would like to thank the production mixer John and the re-recording mixers Joe and Doug for doing such a wonderful job in putting all the elements together.

*Thanks for your time everyone, and congratulations on a job well done!*
MEET THE WINNERS

CAS Award Winner – Specials

Anthony Bourdain: Parts Unknown “Bhutan”
by Matt Foglia CAS

Anthony Bourdain was a celebrity chef who helped bring the culture and cuisine of lands near and far into our homes, often introducing audiences to the nuances of cities, towns, and villages they otherwise wouldn’t be privy to. Behind the console for most of those adventures over more than a dozen years has been Benny Mouthon CAS. Benny’s sound work in the area of narrative-driven content has garnered him a Primetime Emmy (plus six additional nominations), a CAS Award (plus three additional nominations), a Daytime Emmy (plus an additional nomination), and two News & Doc Emmy nominations.

The son of Swiss parents from the French-speaking area of the Alpine country, his father was a university mathematics professor, who was also a semi-professional opera singer. Benny and his family left his birthplace of Zürich, Switzerland, at the age of three for the university city of Mérida, in Venezuela’s Andes Mountains. “It wasn’t an obvious place for my parents to move to at the time; especially since they didn’t speak the language. It was a move born out of curiosity and a sense of adventure.” His father was a founding member of the university’s choir, the Cantoría De Mérida. “As a little kid, I remember my dad would often bring the entire choir back to our home where they would break out the guitars, beers and plenty of rum and they would sing until four in the morning on ‘school nights!’”

As a result, Benny was exposed to a lot of music, culture, food, and, through his mother, cinema. “My mother was a cinephile. I used to watch a lot of non-mainstream films with her since we were in a university town. With her and her friends, I learned to ‘talk’ about the components of a film such as the cinematography, editing choices, as well as what I liked about a film, and things of that nature.” This exposure would influence his creative approach later in life as he established himself as a sound designer and mixer.

Taking another step up the cultural exposure ladder, his father took a sabbatical and moved the family to England for a couple years when Benny was 10. Then back to Venezuela until 1983 and then back to Zürich, when he was in his mid-teens. As you can imagine, Benny can speak a number of languages, “I know enough to get me in trouble.” “Enough” being English, French, Spanish, German, and basic Italian. “I’d like to think that having had to learn all those languages helped me listen more; which helps me as a sound designer and mixer.”

While Benny played music, “We always had instruments in the house and I’d play with friends, but I was pretty terrible,” he developed a curiosity for the technological side. “I enjoyed taking apart the cassette deck when it wasn’t working. Once it was back in action, I loved watching the VU meters and seeing how they reacted to the sound.” He studied the basics of electronics, which taught him about resistors, transistors, etc. Then, “I really got into computers in the ’80s and ’90s and that really helped me hone in on the Mac OS.”

Benny’s journey brought him to New York City when he was 23. After seeing an ad in the Village Voice for the Institute of Audio Research, he realized that audio engineering bridged many of his interests, so he enrolled. This led him to work as an assistant in a small demo studio for a BMG songwriter. “While we rarely had bands come into record, I was able to become familiar with a lot of the technology. The owner bought an Apple Quadra 900 and Pro Tools version 1 to expand his 24-track 2″ machine. I immediately gravitated toward that and became pretty proficient.” That gig introduced him to some people who worked in the art and documentary realms. Those contacts led to him assisting on Helena Solberg’s documentary on Portuguese-Brazilian singer/actress Carmen Miranda. “I had such a fun time watching the Steenbeck being put through its paces and started to learn how editors think in order to tell stories.”

For the next couple of years, “I was doing a little bit of everything. I worked as a Pro Tools operator on music gigs, but I also got into the video side of things. My neighbors worked on some industrials for a bank and they had me compose music, video edit, make simple graphics, and things like that. The video editing really helped me learn about video frame rates, pull-ups and pull-downs, and the lingo that video editors use; something I wasn’t exposed to on the music side.” He had also done some work as a sound editor and mixer at a smaller audio post facility called Cyclops. Then came an opportunity.

“The picture editor from the Carmen Miranda doc,
Amanda Zinoman, told me she was doing a show called *Trauma: Life in the ER* for NYT TV (*New York Times* TV) and that they needed a sound editor and mixer. This was the late ’90s, during the dominance of MiniDV video, and was a total run-and-gun type of show; no production mixer, just a shotgun and a lav directly into the camera. I was the single-person team; sound editing, designing, and mixing. I remember thinking, ‘How the hell do I clean this up enough for broadcast and to pass QC?’ It was kind of trial by fire but became a great place for me to see how mixing affects a show and how it can influence the story line: a scene became more intense by pushing ambulance sounds above the dialogue, for instance. Most importantly, because it was a series with lots of episodes that aired on TV a month or so after I was done with the mix, I was able to watch and learn what worked, what didn’t, where I should have been more aggressive with EQ or where I over compressed.”

Over the next couple of years, Benny would work on other similarly-styled TV shows, reality shows, and long-form documentaries. At NYT TV, he connected with producers Chris Collins and Lydia Tenaglia, who produced a half-hour series focusing on travel and food hosted by Anthony Bourdain called *A Cook’s Tour*. Benny mixed most of the first season. Chris, Lydia, and Tony would go on to create *No Reservations* for the Travel Channel and they called on Benny to sound design and mix. “The one-hour format allowed Tony to spend more time talking with locals, discovering the history of the location, and getting to better understand the culture. It became more structured and narrative compared to the half-hour show.”

As an aside, it was during this time that I started working with Benny at the post-production company called PostWorks New York. I recall on more than one occasion walking into Benny’s studio, hearing ambiences playing out the speakers, and seeing Benny on the couch in the front of the room sipping an espresso. “I feel like I’m in a piazza,” he’d say. Benny’s a character—and one of the main mixers I could rely on to provide a great mix for my clients when I was unavailable.

Benny continued his work as the series for which Benny received this award for came to fruition. “Chris and Lydia have always trusted my work. I’m very protective of it and consider myself one of the team. They’ve always been receptive to my ideas and, over the past number of years, I have had some beautiful footage that I’ve been able to complement with sound.”

I asked Benny if he could share some memories of working with Bourdain. “My favorite memory was one of the first times Tony came in to record VO. He goes in the booth and lights up a cigarette—not thinking anything of it. And I have to tell him that he can’t. And he starts going, ‘I thought recording studios were a vicissitude of personal freedom and all this stuff.’” (Laughs)

He continues, “With Tony, what you saw was what you got. He was one of those people who made sure the statements were right, the pronunciations were right, etc. If a show or scene didn’t feel right, even after all those years and considering the other projects he was involved in, he’d make sure it was adjusted and brought to a level he felt comfortable with. He really cared about the quality of his shows and never went on autopilot.”

Benny and his two partners, Lou Teti and Pat Donahue, opened the three-room String & Can audio facility in 2010. “We’re centrally located near Herald Square in Manhattan. We have two 7.1 Dolby-approved rooms, one of which will hopefully soon be upgraded to Atmos, and also a smaller 5.1.” While he continues to do lots of work for Chris Collins and Lydia Tenaglia’s company Zero Point Zero, Benny recently finished longtime client Stanley Nelson’s *Miles Davis: Birth of the Cool* documentary film and the miniseries *Reconstruction: America After the Civil War.* “That project was one of the most interesting jobs. We had mostly sit-down interviews, photos, and some animations. For the sound design, for example, we had to go in and think whether a type of locomotive was present during that era or whether a sewing machine in the late 1800’s made a specific kind of sound. It was a remarkable project to work on.” Being that Benny was the supervising sound editor and re-recording mixer on the project, he adds, “Wearing both hats allows me to select what will work in the final mix and allows me to be much more efficient with my time—which can allow for more creativity.”

The sound mix for many projects on Benny’s résumé demonstrates this creativity. “It’s a certain type of filmmaker who understands the importance sound can play aside from the obvious things. Adding the non-obvious sounds can often make a project more authentic sounding and interesting and really help carry the narrative. I’ve been really fortunate to work with a number of those kinds of filmmakers.”
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The CAS President’s Award is a rare and coveted gem. In the entire history of CAS’s 55-year existence, it has only been given out just a few times! It represents the inclusive excellence that is the Cinema Audio Society. I am honored, grateful, and so very proud to be interviewing the third recipient, the first singular woman in post-production sound, and, I am lucky to say, one of my role models and teachers; Foley mixer MaryJo Lang.

“IT HAD TO BE YOU”

Foley Mixer MaryJo Lang…

Life & Her Recent CAS President’s Award

by Jesse Dodd CAS

What does this award represent to you?

(With the sweetest smile and look of peace & wonderment) Everyone should have a night like that. When people you know and don’t know, come up to you, hug you, and tell you they love your work and respect you. I always felt that I had done good work, but that night! [Even more so] because Foley and ADR mixers don’t get many kudos for what we do. We don’t get acknowledgment from MPSE, we don’t get acknowledgment from the Oscars, we don’t get acknowledgment from the Emmys. We just don’t! So, it was a real joy to be recognized in this way and on this level. It means a lot to me and those, such as yourself, to follow. It represents some much needed movement in the industry, I think and hope! (LOL)

When did the sound bug bite you?

Well, I was doing wardrobe at Disneyland, dressing Mickey and Minnie.

OMG! What a cool job! (We both laugh)

One of the guys I worked with at the time was interviewing for the wardrobe department with the 1984 Olympics. As it turns out, he was offered the job, but was unable to accept it because he would be demoted by Disney upon his return. I looked at him and said, “Oh my God, I would have accepted the position in a heartbeat.” He said, “Here’s the number, go talk to them.” So, I did and got the job! That position led me to Toni...
Spadafora, who was married to Tim Sadler, part owner and Foley mixer at TAJ. Through that friendship, I met Mark and his wife Patrushkha, who offered to train me as a cable person months later. Initially, Tim offered me a job at TAJ as a runner, I hated it!

After speaking with Tim about my dislike of the job, he looked at me and said, “Let me see what I can do.” He later offered me a paid internship in the sound department. [Which was] rare. It was during this time that I was trained in the ways of Foley mixing by Greg Orloff and Jimmy Ashwill. Clearly, it fit like a fine Italian-made leather glove.

What was your experience like in your early career?
I was lucky TAJ was very open-minded in regards to women mixing, though I eventually left because they promoted a man over me. I then addressed my inner desire to produce and also worked with Frank Oz for a bit. Then the infamous writers’ strike happened! Like many, I was barely making it through, when the head engineer at TAJ called me and asked if I would consider coming back? I said, “Okay,” in a reluctant voice, not letting on how desperate I really was at the time. (Laughs) As it turns out, the guy they had promoted over me, blew out several speakers, among other things, and was fired. So, I was now the new Foley mixer and stayed there until Disney took over the company. At that point, I and the crew went to Warner Bros. (WB) and the rest is history.

Let’s talk about the Warner Bros. days. Your body of work is so vast; what show was the most fun?
Oh, that is so hard to say. I can’t narrow it down, but I will say that the most satisfying job I ever did was The Matrix.

OMG! Yes ma’am, that was a Foley extravaganza!
They used so much Foley and that was just so gratifying. As for the WB days, throughout the years there was joy and pain as the company evolved. But all things being said, I am so proud of all of my work there and appreciative of the collaborative efforts put in by us all. Because the truth of the matter is that it is a finely choreographed dance between the mixer and the artists. If any of the steps are off or anyone misses a step, the entire team suffers and, consequently, the show suffers. Our team thrived to make each other shine and I think we did that.

How do you see the industry going in regards to women and opportunities?
I would say it is still a really rough road to walk because it is still very much a relationship-based business and people want to hire people they are comfortable with and that they know. So, unless you can get on that track, and let’s be honest, that track consists of mostly white guys, and they are mostly comfortable with other white guys. I was very fortunate. I got in with people who did not have that mindset and, in a few cases, preferred working with women and would go to bat for me. I have had a studio head say to me, “Well, the only reason I am hiring you, is because the Foley team wants you,” and to that I replied, “that’s because I am good.”

To be honest, I don’t know if that mindset has changed much. Especially with all the #MeToo and below-the-line post-production stuff. Sadly, I think the industry is slow to catch up with humanity. I spoke at a school in Finland and a young lady asked me if I think the industry is changing in regards to women. I said, “I am sorry, but I do not.” Not in my lifetime, anyway. Women are on the dubbing stages, but not so much in Foley and ADR. And, sadly, I still think it will be a long time coming, if ever, before we see a dubbing stage completely staffed by women, unfortunately.

In terms of your body of work and the legacy you hope to leave, what do you want people to know about you?
I would say that for me, WE ARE ARTISTS! I think that is not widely known. There is such dedication and pride in the work that we do. And I think the fact that that is not known or acknowledged is a shame, I really do! I think it is just as worthy and important as other artistic efforts in the movie and television-making business.

It was such a shock when I got on the executive committee at the Academy that people didn’t know how much sound contributes and actually shapes and impacts the final product. That’s shameful! It takes a village and no one thing is more important than the next. My body of work is an example of that. That is the most important thing I want them to know.

If there were a Foley time capsule, what would you put in it and why?
Oh boy! Let me see. A couple of things. I would probably put a DVD or video of one of the “Making Of” tutorials that we have done. And I guess one of my favorite films. I would put the “Making Of” because it shows what the process was and the various interviews showed how dedicated the people who worked in the Foley sector of the craft were, that we took it seriously. Also, it is indicative of the collective mindset of me and all of my immediate colleagues.

In an industry that tends to think it is a silly way to make a living, we Foley mixers and artists take it very, very seriously. It was said to me by a fellow worker and friend that Foley injects soul into a project and that the sounds created are personal and give personality to each character and item, and that is so true!

Now that you’ve had a moment to look in the proverbial “rear-view mirror,” what would you do differently, if anything?
I would probably have retired years ago! (Laughs) To be serious, I spent a lot of time trying to do other things because I felt that this wasn’t enough. Maybe I should be a producer, so I wrote a script. Maybe I should try and be a dubbing mixer, maybe I should try this or that. I wasted a lot of energy on the “maybes” and I should have just focused and been happier where I was. I believe things would have been more soul soothing.
Geesh! If this is what you have given us being less focused, I can’t even imagine what could be if you were, as you say, “more focused!” (Laughs)

I don’t think it would have changed a lot. Knowing all those different aspects of the film business, I believe, only helped with the work that I did. But, I think, I personally would have been more at peace on a daily basis.

Any chance of you coming back to work?
Emphatically, “No!” (Laughs)

Not even a project here and there?
No! (Continues to laugh)

OK, OK. Let me ask one last question. What do you think or hope your receiving this coveted award will mean to those coming behind you?

(She seriously, passionately, and softly says) I can only hope that it gives you and those yet to come the courage to follow through. I could not see myself doing anything else, I just couldn’t! I wanted to be in the film industry so badly. It wasn’t easy and due to challenges here and there, I was miserable at times. But, that’s part of the game in any vocation. But, I just couldn’t give up. I just wanted it so badly and I think that if you want something that badly, you should just go for it! Because, you never know! It could work! I really didn’t know how this would turn out, but I followed through and it worked! And now, here I am with you and I got the CAS PRESIDENT’S AWARD! Wow! I am completely blown away. Thank you CAS and colleagues with all my heart.

After chatting with MaryJo for over three hours on and off the record, I was again reminded that she is not only incredibly smart, talented, and has the intuition and advice of Obi-Wan Kenobi, but she is one of the kindest, most humble, and caring spirits I have come across in a long time. I am extremely blessed to have had the great fortune of knowing and being taught by her over the years. I am so very honored to call her my colleague and friend. I give her reverence and that is why “IT HAD TO BE YOU” at this time in history/herstory. “Applause, Low Bow, and a Hat Tip” to you, lady. Hard-earned and well-deserved. Congratulations on receiving the CAS President’s Award! This industry is better because you were in it.

“IT IS A FINELY
CHOREOGRAPHED DANCE
BETWEEN THE MIXER
AND THE ARTISTS. IF ANY
OF THE STEPS ARE OFF
OR ANYONE MISSES A
STEP, THE ENTIRE TEAM
SUFFERS.”
This is the fifth year that the CAS has presented its Student Recognition Award. The award this year went to Anna Wozniewicz from Chapman University. Women have been traditionally underrepresented in the sound business. But the future, it seems, is female.

All the finalists this year were women and of the five finalists last year, four were women.

This year, IMAX and Aaton Digital co-sponsored the Student Recognition Award and, as a result, the prize went up to $5,000 for the winner and $1,000 for the other finalists. Both the winner and the other finalists also received a valuable collection of software and other gifts.

Anna Wozniewicz is passionate about sound and a veritable go-getter. While still in college, she and her friend Helena McGill formed a company to explore the world of immersive sound and virtual reality (VR). Her website is www.noctvrmal.com. I sat down with Anna in her new office and asked her some questions.

What brought you into sound and, specifically, sound for film?
I went to film school, didn’t know what I wanted to do, knew I liked film but didn’t know sound was a path. I really liked editing and post-production and through that realized post sound is a field and a career path. Some upperclassmen became my mentors in sound. I got super into it. I was also into music and played drums. Sound is a cool mix of my love of music and the visual side of filmmaking.

Did you do any production mixing?
I did all throughout college and still do. I freelance and do production mixing for VR shoots. I do love going on set as there’s something nice about being surrounded by people in such a collaborative environment. I definitely prefer post but I do enjoy production mixing as well.

What does the CAS Award mean to you and what will you do with the money?
I am super, super thankful to have gotten it! I am so grateful to the whole of CAS and to those who voted for me. It’s a huge honor and a testament to the work I’ve put in in college. It’s nice to have that recognized because it’s easy to lose sight of my worth when I’m asking myself: “Am I doing good work?” “Will I have a job?” It was eye-opening to see other people being excited about my work when, while I was doing it, I was just in a bubble and just working. All the money I get, I put back into my company. It’s nice to have the extra cash to do passion projects and improve our skills and get better.

What prompted you to start your own company at age 20 before you finished college?
In 2016, we worked on Chapman’s first VR production. It was called The Harvest and was a Halloween horror film. It was a 360 video and the first time, I was introduced to VR. The tools at the time were super clunky and primitive. It was stressful but after it was done, we thought, “This is cool!” Building out sound in a 360 environment was something we had never done before but it was so cool that Helena and I just wanted to keep doing it.

From fall 2016 to the beginning of 2017, we talked about it and then thought, “We both think this is the future, we’re both really interested in pursuing sound and specifically tech, what’s our company?” From there, we worked with other students, went to a ton of networking events in LA and got involved with the VR community early on. That helped lay the foundation for what we are doing now. It was hard doing it in college. It was mostly part-time up until this last September.

Tell me more about virtual reality.
The fears that VR will replace movies are totally unfounded. It’s a supplement. People don’t want to stay in headsets for too long. I don’t think it’s going to replace traditional media. I think it’s a great tool for branding and marketing and as a complement to traditional media. Other applications include training and artistic and experimental films. For us, that means mixing in a 360 environment, which is my favorite thing ever.

How do you mix that?
You have to wear headphones, which I love because you can work in an office like this with other things going on. You can render it live, you can live preview on your desktop. You don’t need special headphones. I use just regular headphones. All the rendering is done by the plugins or the headsets once you export it. It seems a lot more complicated than it is. I’m often
asked, “How do you make the sound stay put?” I assign the sound to the location and the computer does the rest.

What equipment do you use?
The weird thing about VR is that you need a PC, as well as a Mac. You need a Mac to mix and then a PC to play back into the headsets. It’s becoming more cross-platform but for certain game engine things you need a PC.

What are the plugins?
Facebook 360 Spatial Workstation. It’s integrated into Pro Tools now. Pro Tools Ultimate has ambisonic support, you just have to download the plugin. Avid and Facebook have been working really closely to develop that connection. Then there’s Dear VR, which I don’t know as well.

There’s a lot of stuff we do that’s game engine-based, so we will be working in Unity and delivering individual sound effects. Depending on the project, it will be a very cinematic workflow or just delivering individual sound effects for a game engine.

What’s your next step?
We just moved into this office out of our houses where we were working the last nine months. Now we would like to get more involved in the immersive tech world. We started off doing 360 and VR and that moved us into augmented reality and installations and immersive theater.

I was just in New York networking to find out what is being done and it seems there is a lot of immersive theater. It all falls under nontraditional mixing, so you can hide speakers around different set pieces and weird spaces because they are not traditional theater settings. Installations are very site-specific and dependent on the content.

What projects are you currently working on?
We’re working on a number of immersive projects. One is a short 360 film with students from AFI. It’s their thesis project but it’s an anomaly even for AFI. We’re also doing a VR documentary and an installation that will be in Denver or Boulder in Colorado. It’s a pedestrian walkway/tunnel thing where they are going to be setting up a number of connect sensors and speakers throughout the tunnel so that, as you are walking, you can move your body to trigger different sounds depending on which part of the tunnel you are in. We’re also working with a company that does medical training for caregivers. Its 360 videos and then interactive scenarios that are object-based. Research shows that people stay in an experience 40 percent longer if there’s a spatial mix involved than if it’s a stereo mix.

How do you get your projects?
We go to networking events constantly. That’s what I was doing in New York, talking to people to find out what they are interested in. The Colorado project came out of cold emailing a bunch of companies and now we are working with one of them. It’s all about word-of-mouth connections and Facebook groups. So many Facebook groups and so many projects are being posted on Facebook.

When and where will your next installation be?
The corridor project will be opening in the summer. It is a permanent installation commissioned by the city with the company we are working with. We want to develop something of our own that is very audio-centric, so we are producing an art show in May. We are commissioning works from other artists and there will be five interactive installations, one of which is ours. It’s a way of producing a platform to display our own work. It will be in downtown LA in a warehouse.

Having entered the Student Award two years in a row, and winning the second time, do you have any advice for someone wishing to enter?
Just enter, you have nothing to lose. The application is easy. It’s more about showing your passion for sound than winning. You don’t have to be a professional to do it.

What’s your favorite part of the sound-for-film process?
Mixing. We freelance doing external traditional mixing projects to pay the rent. I really like mixing with nontraditional speaker setups like an installation we did with a 6.1 setup with speakers in a circle around you. And we did this pyramid that had 20.4 speakers on all faces of the pyramid in a triangle setup. It’s fun to throw sounds into different spatial locations.

Is there anything else you would like to add?
2020 was the year when VR was supposed to explode. It’s growing much slower than expected but it is growing and we are glad to be a part of it.

To learn more about Anna’s company and her recent projects, go to www.nocturnal.com
**MEET THE WINNERS**

**Outstanding Product – Production**

Dugan Automixer for the Sound Devices 633

by Devendra Cleary CAS

I recently had the absolute pleasure of sitting down and chatting on the phone with Dan Dugan of Dan Dugan Sound Design and Paul Isaacs of Sound Devices. It was a couple weeks before NAB and excitement was already in the air. Even though I had not met Dan before I immediately had felt as I do about my friend Paul Isaacs, who I know I can tech talk with easily. So this opportunity culminated into a tech talk fest!

![Dan Dugan with his award](image)

**DAN DUGAN:**
CEO of Dan Dugan Sound Design

**When was the idea of the automixer conceptualized?**
The invention was actually made in the seventies.

**How did this idea come about?**
I was doing the sound design for three of the resident companies of *Hair*. It had a very successful run in New York for several years. They opened a regional production in Los Angeles. The next one they were going to establish was San Francisco, and I was the sound designer at American Conservatory Theater from which *Hair* was going to rent The Geary Theater. The management hired me to do sound design for the next three productions, which were Chicago, Las Vegas, and Toronto.

**Tell me about some of the technical challenges with using the equipment available during that time period.**
In 1968, mixing consoles were hand-built by chief engineers of radio stations and TV stations and recording studios, and it would take a couple years. Part of building a station was building a console. You couldn’t go out and buy or rent one. *Hair* was mixed on a rack of rotary knob mixers and no EQ, not even high pass filters. There were about 34 microphones or so in the show. All that was handled by this poor guy twiddling knobs, and it was quite difficult. So, I thought, “There must be some way to turn on microphones when they need to be used and off when they aren’t.” So, I started experimenting with gates and a number of open microphone attenuators that had been tried by Ancha and Patterson in 1968. It took about six years, and I found that just gating over a fixed threshold was not going to work.

The first system which I patented was a mixer that had an audio reference, which could be, but doesn’t have to be, the ambience in the room, and the threshold follows the ambience. So when it’s loud in the room, the threshold is high; when it’s softer in the room, the threshold is lower, and that worked. There was a popular studio gate at the time, the Valley People Kepex, which wasn’t just a gate. It was a downward expander with a 2-to-1 slope below the threshold, and was much smoother without popping off and on. The combination of those things made my first automatic mixer patent, and it actually worked!

While I was trying to find somebody that might want to produce it, I was continuing to experiment and I’m thinking, when one mic is hot, all the other mics should listen to the ambience, and there should be some way to derive the ambience from the program mics. I had a big breadboard system that I kept patching around in different ways. I found a patch that seemed to do it all in the inputs and was smooth. When you talked in the mic, it came up and the others went down, and there was no gating. I had to reverse engineer it to write the patent I could figure out what it was doing. It turned out to be a very simple algorithm. Now, if I had written that algorithm, I would really be a genius, but I stumbled upon it.

**Tell me about your company.**
I’ve always been a shoestring operation. I have one full-time employee that answers the phone and a technician that comes in two days a week. The manufacturing is done by a very good contractor here in San Francisco, BBI Engineering. I make a line of products which are for retrofitting automatic mixing into existing consoles via the insert points. I have five different products that have different connection schemes: unbalanced analog, balanced analog, AES digital, MADI, and Dante. With that range, almost any console can be accommodated.

Sound mixer Danny Maurer uses the 633 and automixer. Before it was incorporated, he specifically said, “Man, I wish Sound Devices would just put Dugan Automixer in the 633.”

Now, he probably uses it every single day.

You know, what happens with the manufacturers is you bring
about 40 feet off on the left and to the rear is a left-rear channel and about 40 feet off to the rear and on the right is a right-rear channel. So, the rear channels are uncorrelated and not imaging. They’re intended to fill in the space. That basic four channel works very well.

Over the last couple of years, I have been experimenting with height channels for Dolby Atmos. It’s taken a while but I finally have a rig. Basically, a real heavy-duty lighting tripod and a couple of gaffer clamps that go on that holding a 12-foot boom pole. At the top, I have a T-fixture which puts two MKH 20s about eight feet apart. So, it’s an all-omni system. The heavy system weighs 50 pounds with the height mics. I can’t backpack that, it has to be within half a mile of the car.

And then I have a light system which I can backpack. My recorder is an old Zoom H2, which is a four-channel digital recorder that’s been modified by Oomagamma. They took out the internal microphones and put in two pairs of 3.5 millimeter jacks; one stereo jack for the front pair and one stereo jack for the rear pair. I’ll have that in the sleeping bag with me and then run out long cables to the microphones and clip them onto bushes or tie a trick line around a tree and clip the mics to that. We call that “tree ears,” using the tree as a baffle, and that makes a really nice stereo. If I don’t take any spare equipment, that system weighs as little as 5½ pounds.

PAUL ISAACS:
Director of Product Management and Design at Sound Devices

How did this product idea come to be?
As we’ve got more into production sound multichannel mix and

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From left: Dan Dugan in a production studio set up in a dressing room, Old Globe, 1978; Dugan in a recording session, Old Globe Theatre, 1984; experimenting with the heavy system: Jecklin Disk and height mics, Upper Mariposa Grove, Yosemite National Park.

What do you like to do in your free time?
After NAB, I’m going to go down to do one of my surround nature recordings at Joshua Tree National Park.

That sounds wonderful. I mean, that sounds like work, but it also sounds like the kind of work that doesn’t feel like work. I do nature recording in the national parks as scientific research, so it’s art and science combined. I get research permits from the Park Service so I can sleep out in the place where I’m recording. And it’s really a privilege and often cosmic.

If you wouldn’t mind, what equipment do you use to record and what microphones do you use out there, unless that’s like a trade secret?
I have a heavy system and a light system. The heavy system is the best and the recorder is the Sound Devices 788. It’s based on four Sennheiser 8020 omni mics. I record in the evening and then I leave the mics out overnight and I record the dawn chorus in the morning. I find it much easier than trying to find my spot and set up in the dark to just camp there. Interesting things happen during the night. My protocol is to do 90 minutes in the evening going up to the end of nautical twilight, and then I stand by using a prerecord buffer during the night for anything that might happen like owls or coyotes. I’ve actually gotten three trees falling with many years of recording.

So if a tree falls in a forest and only Dan Dugan is around to hear it, does it make a sound? I guess that answers that question!
I have a technique where the front channels are an imaging stereo array, which is a Jecklin Disk in my case. It’s a baffle that goes between two omni mics. They’re all in the Rycote windscreens. That setup is to hopefully image an area, and then
recordings with the 688 with 12 inputs, the product was starting to be used in more live events and conference-style productions where it starts to become difficult to manage all these open mic sources. There were conversations behind the scenes, especially with Matt Anderson, our CEO. He originally came from Shure and was very heavily involved in the whole automixer of the Shure product line. “Hold on a second, Matt knows how to do automixing.” This is something that many of our users have asked for help with in handling all these open mic sources. It seemed like a logical step to see if we could accommodate that into our products. The first automix algorithm we came out with was actually Mix Assist.”

**It was in the 788T, right?**

Yes, and it seemed like a natural progression from the 788 to throw it into the 688, which had even more channels. So we brought that out and everyone was very excited. Dugan is the name in automixing. There’s no doubt about how great his algorithm is, how widely accepted it has been in the industry for many years, and that’s what people wanted. We took a look at that to see if we could handle the algorithm in our product and we could. We just felt we should give the user a choice.

**It was fascinating to talk to Dan about the history when he first came up with the idea back in the seventies.**

He says he stumbled upon the exact attenuation gain sharing algorithm one day and it just worked! We’ve known Dan for a long time. He’s a really wonderful guy. He’s used our products for a while. The fact that we have this good relationship made it easier for us to work with him. Having that face-to-face/sitting across a desk, really fine-tuning the way we should present it in our UI. To have him sit in really helped us to make sure our algorithm did exactly what he wanted.

**What was it that prompted you guys to implement it for the 633?**

It was pretty much entirely driven by user request. Almost daily, we’d have multiple people say, “We want Dugan for the 633!” And, as you know, the 633 is very much based on the same architecture as the 688. So, it’s actually a relatively straightforward process to port that code. Obviously, it had to be modified for different channels and the UI had to change accordingly. We thought, “Well, okay, we’ll provide this as a free update to our users.”

I remember when they introduced Dugan for the 688, Danny Maurer, who is a 633 user, was one of those people that said, “What? I really need this for the 633” because he sometimes does jobs where he’s over the shoulder, booming, and mixing simultaneously. It’s the perfect tool for him doing that kind of work.

Exactly. For a one-man band having to handle these multi-talent interviews or docos. Even six channels, at that point, becomes a lot to handle.

**How do you feel about developing hardware and software for such a niche market?**

Well, we love it. It’s like a family. When you first start making products for a very niche market, there are a lot of challenges to make it work from an economics perspective because when you have such a small customer base, every decision you make in product design becomes magnified. We’re not an Apple-like company where we have huge amounts of engineering resources. There are challenges. But the rewards, because we have such a close connection with this niche market, we know the majority of people by name and that’s really nice. So, it does feel like family. Talking to you now, it just feels like we’re all part of the same team, really. But having said that, we are branching out, which we have to do to remain healthy as a company. This is one of the reasons why we’re also in the MixPre Series market. We’ve brought our technology to a wider audience of people who care about audio and we are wanting to address all content creators.

When I interviewed Dan, I asked him what he liked to do for fun. His answer made me laugh because I can relate. I think it’s great that people are so into what they do. He said: “During my free time, I like to go record nature sounds.” I thought: “Wait a minute, that’s part of your professional world.” What do you like to do in your free time? Music is my thing. Music has always been a very big part of my life. My instrument is the piano and keyboards and synthesis. I like composing and performing live. I play a lot of classical piano and jazz piano. I like to record my piano and try and get as close to Madison Square Garden as I can now. Unfortunately, I need a much bigger cathedral ceiling in my living room. I like the camaraderie with other musicians and love writing music.

**What do you feel about developing hardware and software for such a niche market?**

Well, we love it. It’s like a family. When you first start making products for a very niche market, there are a lot of challenges to make it work from an economics perspective because when you have such a small customer base, every decision you make in product design becomes magnified. We’re not an Apple-like company where we have huge amounts of engineering resources. There are challenges. But the rewards, because we have such a close connection with this niche market, we know the majority of people by name and that’s really nice. So, it does feel like family. Talking to you now, it just feels like we’re all part of the same team, really. But having said that, we are branching out, which we have to do to remain healthy as a company. This is one of the reasons why we’re also in the MixPre Series market. We’ve brought our technology to a wider audience of people who care about audio and we are wanting to address all content creators.

When I interviewed Dan, I asked him what he liked to do for fun. His answer made me laugh because I can relate. I think it’s great that people are so into what they do. He said: “During my free time, I like to go record nature sounds.” I thought: “Wait a minute, that’s part of your professional world.” What do you like to do in your free time? Music is my thing. Music has always been a very big part of my life. My instrument is the piano and keyboards and synthesis. I like composing and performing live. I play a lot of classical piano and jazz piano. I like to record my piano and try and get as close to Madison Square Garden as I can now. Unfortunately, I need a much bigger cathedral ceiling in my living room. I like the camaraderie with other musicians and love writing music. I’m also a family man. I’ve got kids, and that’s a big pleasure to me. Although less and less now because my eldest boy is at university and my youngest boy is going to be at university next year, as well. Guess I’ll have more time to do the music!

**Well, you’ll have some empty nest syndrome happening maybe.**

Well, actually, we are just about to move to a smaller house. Which is all being designed around my piano.

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From left: Kishore Patel, Managing Director of Audio Limited (a Sound Devices company); Ed Capp, Vice President of Sales, Sound Devices; Dan Dugan, CEO of Dan Dugan Sound Design; John Tatooles, Co-founder of Sound Devices, at the 55th CAS Awards.
MEET THE WINNERS

Outstanding Product – Post-Production
iZotope RX 7

by Devendra Cleary CAS

iZotope RX is a mainstay in the audio post-production industry. The quality and impact of their product on post work is prevalent through the multiple times it’s received this award, not to mention that their software is often used as a verb: “I’ll RX it.” I scheduled a phone interview with senior product manager Mike Rozett and received a wealth of fascinating material. The company he works for, plus the story of his professional journey, is enough to inspire any sound professional new or seasoned.

MIKE ROZETT:
Senior Product Manager at iZotope, Inc.

Talk to me about your work with the development of RX 7. I’ve been with iZotope for about two years and RX was started more than 10 years ago. It’s really just evolved over time by our team looking at some of the things we can build on our end to solve the problems that we keep hearing from customers. Some of those problems are always revolving around: How can I do something faster? How can I do something with less mouse clicks? How can I clean up audio in the shortest amount of time possible? Basically, nobody in the history of this business has ever said, “We definitely had too much money and we had too much time, I wish we’d had less of both.” There’s always that need for us to keep refining what we’ve done and to find new ways to improve our processing.

RX 7 was the first version of the product that you were part of from start to finish. Tell me about the process. There’s a research and development team and they’re always looking at new and exciting trends in their field, whether it connects to audio directly or not isn’t important at an initial stage, it’s just looking and seeing what the trends are in their field. Then they look for connections in the audio world and then we start to map what we’re hearing are problems from customers with some of what we know. We can do extremely well on our end. And then try to connect those two things to come up with features that are using technology because it solves problems and saves time. So, it really has to map up to customer need. And we’re pretty serious about that. All of my predecessors and all the notes they’ve left before me and the team that’s here reflects this. There’s a few people who have been on RX basically since the start. So, there’s a nice continuity of people there.

RX 7 ADVANCED
The industry standard for audio repair

Many of the world’s largest post-production and broadcast facilities rely on RX to repair and enhance audio for a few simple reasons: it’s easy to use and gets professional results quickly, saving time and money.

Get full control over your audio, whether it’s isolating dialogue, reshaping dialogue performances, removing dialogue reverb, or isolating musical elements without the stems, and all in multichannel up to Dolby Atmos 7.1.2.

IZOTOPE Learn more at www.izotope.com
who know what we’ve done, know what we can do, and start to figure out the things we haven’t even thought about doing yet and how we can put those into products or features that will really help people with the work that they do.

My friend, Jacob Riehle, is a sound editor and uses your product every day. He said that what he loves about RX is that it gives editors the ability to perform magic on production dialogue and ADR. And, interestingly, that they are usually able to do things that filmmakers assumed they could do anyway once everything moved to nonlinear. What’s your take on that and how do you feel about being a part of something that gives somebody that level of ability?

Well, that’s a great sentiment and I’m really glad to hear it. That is a lot of what we’re trying to do, and I’ve heard that from other editors and mixers who have said the very same thing. They can’t believe what the software can do, and it is kind of magical. Once you’ve had one of those experiences where you’re looking at something that used to be impossible to salvage, like maybe pulling dialogue out of an incredibly noisy background, and being able to run “Dialogue Isolate” for example on it and have it really, clearly pull that dialogue away. Something that used to be tons of time, at best, with EQ and gates and hand cutting out pieces of noise, in the very early days. People are always talking about how they really appreciate that and how it is magical and how it saves time.

We love hearing that and it’s really important to the team here. Stories that range from getting rid of the cicadas and the crickets in the background to the plane that ruined the take, to the dog barking in the background, to an amazing performance but just with a ton of noise behind it. How do I pull that dialogue performance out? Hearing those stories never gets old. Whether it’s me or the sales folks, we always bring it back to the team and share it with everybody here. It gives people a sense of how well their work is going and how much it’s appreciated. To have those kinds of reactions and that connection to the post-production community is wonderful. They have been really supportive of what we’re doing.

Tell me about RX in terms of analogies that might best describe it to the layman.

Think about RX as kind of like a microscope for sound. When you’re looking at the waveform or if you switch over to the spectrogram, you can see the intensity of the sound, as well as the frequency and how much time it takes up. You can use our tools to start diving into the split-second between 1 kHz and 2 kHz where you’re hearing something that doesn’t sound right, and you can drill into that spot and make very, very fine edits across the frequency spectrum, for whatever duration you feel is necessary as an editor.

And you can do things that weren’t possible even a few years ago. Each year, we get better and better at what we can deliver in terms of processing. But that basic functionality of being able to drill down into your sound and to get right at the heart of the thing you’re hearing that needs to be improved or that needs a little bit of EQ, that’s what makes what we do pretty special. I hear the word “finesse” a lot from dialogue editors. They don’t actually want to go in and clean out every single bit of noise that they hear. They want to clean out the most objectionable parts and they want to make sure that what they retain matches the performance and, for example, the movement of an actor’s mouth. Sometimes a mouth noise is part of a performance. Other times a mouth noise is totally distracting and not right. I’ve heard that a lot of folks who use our software really like that balance of being able to drill down, being able to apply heavily when noise is really objectionable or to be able to work really within a microscope and try to just take out what’s objectionable and let dialogue tracks breathe or let a performance come through and choose what they keep and what they get rid of.

What are some of the most unique ways that you’ve heard of sound teams using your software that you wouldn’t have thought of?

That’s a good question. We had a dialogue editor do a demo for us a while ago, where there was location sound that had a seagull in the background, and the seagull was squawking at almost like a mathematical rate, just continually making this sound in the background. And you could go in and you could see it pretty easily, and you could just do the “Find All” function and find each time that shows up and you could do a blanket process and you could remove them. But what this dialogue editor did was, since there was some actual character to the bird in the background, he selected every instance and pulled it out of one track. So, he had sort of a pristine track. Then he created a second track and pasted it back in. He reset all the levels of the seagull and then effectively mixed it back into the dialogue track, but not at the original volume and not while it was landing over dialogue. To be able to isolate it, strengthen the dialogue so that it stands on its own and yet give that performance a life that sometimes when we’re working on the processing we’re all thinking, “Yeah, just get rid of the seagull, just throw that out.” But that’s always fascinating to me, the things that people want to retain and use our software to retain and put back in, but with full control over it. Yeah, that really blew my mind.

So, it was more distracting to listen to when it was uniform and like a metronome, but it was less distracting when he had control over it to make it sound like it’s happening more randomly. Amazing.

You get it to sound perfect and then you go, “You know what? I can now choose how this real-life location element sounds and I can place it how I think it serves the scene.” So, we constantly get stories like that, from folks who aren’t just wiping out noise, but they use noise as part of the story and part of the performance. And I’m not even talking about sound design, per se, I’m just talking about how, for example, a dialogue read gets cleaned up and really feels like, not only does it sound good, but it feels.
like that performance took place in an actual location and is not something that became sterile because it was too cleaned up.

What was your background before joining the RX team?
I played in bands in high school and into college and was a history major. After college, I came up to the Boston area and started at WGBH Radio as a production assistant and then eventually became an associate producer. That’s where I took my love of music and a little bit of the history and ended up working on a lot of the classical shows and some jazz productions and some shows for a national production.

I started just at the tail end of the end of analog, so I was cutting tape with a single-edge razor blade and getting voiceovers cleaned up. Literally, I was slicing a millimeter of tape, of quarter-inch tape, marked with a grease pencil. And I remember I was hooked from the day they showed me how to do that. There was something incredibly fun and very Zen about cleaning up performances. And then, you know, you move onto other things, like working on full-blown voiceovers and cleaning up music. I went from that and doing freelance recordings to going to business school and earning an MBA.

That’s quite a turn.
Then I was in the internet world, doing product management and business development. But then I went back in the production world as a freelancer for a while. I was a field producer and a writer on a History Channel show called Tougher in Alaska. I did some freelance writing and producing and found my way back into the production world, but on the business and product management side.

What drew you to iZotope?
As anyone who’s freelanced knows, you have some incredible years and you have some really scary years. And so, there’s a ton of music and performance up in the Boston area and we’ve got a real booming tech sector up here. I ended up interviewing at iZotope a little over two years ago, and really saw the connection between the public radio, the editing, and the music/performance background. I still get to work with all the production and post-production professionals that I’ve always loved working with and have a ton of respect for.

iZotope was that convergence of music and business and technology and performance and my genuine love of arts and entertainment. So, out of college, I was the guy cutting mouth noises out of tape with a single-edge razor blade and now, I’m leading a team that makes industry standard software for doing that very thing.

Talk to me about what it’s like working for this company.
Are there aspects that make it stand out or make it special?
Friday meetings are actually pretty cool. They’re led by our CEO and, at the end of announcements and discussion about where we’re at with things in the company, he always asks if anybody has any gigs. And he, literally, hands the microphone to every single person who raises their hand and everyone in the company who has a gig coming up, whether it’s a performance or they’re attending something or they’re recording something, whatever it is, they get to announce it to the rest of the company. And then we also have a Wiki where people post gigs, so we can go to each other’s concerts and support each other. So, it’s really fun.

And you know, there are events, too. We have a company event where the company books its own people to play at the event. So, then there will be a concert, maybe it’s an annual holiday party or something, and I’ll be looking up at my colleagues, some of whom are DJ’ing, some are doing vocal performance, some are performing jazz, and sometimes it’s rock. It’s a full range of genres. But it’s pretty cool to work with people like that where everything they do gets folded back into the products that we make. There’s a real connection there.

I’ve asked all the winners this and love the answers I get because everyone is passionate about their fields and it shows. What do you like to do in your free time?
Oh, that’s a good question. I’ve been looking for free time lately! (Laughs)

If, hypothetically, you had free time!
Well, if there was free time, I’d like to do something that sounds not like free time at all. I’d like to take the software that I’m working on every day and use it for some of my own personal projects. I’m hoping to get some time later this year to basically recover, enhance, and take some music and some family recordings and just bring them back to life and get them into the current electronic formats we’re all using. I want to put that content back into almost daily use, so to speak, and be able to get my hands on it again.

Anything you want to say to the membership reading this today?
I’d like to give a big “thank you” to the post-production community for using the software, supporting it and, also, for being a part of helping us make it better. People contribute through beta. They invite us into their sessions, their studios, they share material with us. We couldn’t do what we do without that input and we’re very grateful for it.
Demetri Martin was back as host this year for another evening of fun! Creative mixing was represented well with wins for *Black Panther*, *Game of Thrones*, and *Star Wars: Battlefront II*. Among the Technical Awards (the majority of the evening) was Avid for Pro Tools Ultimate.

Peter Frampton was given the Les Paul Innovation Award. After performing two classics, “I Want You to Want Me” and “Black Hole Sun,” dedicated to the late Chris Cornell, Frampton made it clear how important he thinks technology is to recording. “Les Paul was the godfather of modern recording, the most innovative of guitar players, and the creator of what we do. It’s a debt we all owe him. Whatever I’ve done to win this amazing recognition started with Les. Les showed us that innovation isn’t about high tech or money—it’s about ideas and using the tools at your disposal to make music in ways it’s never been made before.”

Mixer Leslie Ann Jones was inducted into the NAMM TEC Hall of Fame, with a great introductory speech by Herbie Hancock, with whom she has worked before. As a pleasant surprise, before she was given her Hall of Fame Award, the award for video went to *Star Wars: Battlefront II*, allowing her to take the stage twice in the evening! I had the opportunity for a brief chat with Leslie before the show.

I asked her what the award meant to her. “It means a lot to me. The more people that congratulate me, the more it means to me. I’ve won four Grammy Awards, but those were for individual projects. This award is for an entire career.”

Leslie is a trustee from the San Francisco Chapter of the Recording Academy and still manages the scoring stage at Skywalker Sound. She recently worked with Andrew Lippa on the cast recording of his Broadway musical *Unbreakable*, and regularly works with the Kronos Quartet. She recorded the US Army field band in 7.1.4, with an array in the room and various pairs around the room. It will be released on Blu-ray. Leslie does not follow sales on her projects, so she is happy to do multichannel
audio mixes, which generally have very small releases. This year for the Grammys, the Recording Academy will be accepting submissions above 5.1 for the first time. Asked about why surround is so much more successful in film and television as opposed to pure music projects, she replied, “I’ve always felt that the visuals tie into what is on the screen.”

Leslie is also very active on the Advisory Board of the Women’s Audio Mission and was the first woman officer in the Recording Academy.

I asked her about Peter Frampton winning his award on the same night, and she said, “I’m glad he’s here. As a recovering guitar player, I was afraid they might ask me to play!”

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### THE 34TH ANNUAL NAMM TEC AWARD WINNERS

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Netflix is a streaming juggernaut. The 21 years young media giant grew from a DVD sales and rental business model to a producer and distributor releasing an unprecedented amount of original content fast. This month of May alone, Netflix will release 621 different original shows, movies, and specials to their ever-expanding content catalog. Certainly, a great number of our members are mixing original content for Netflix.

To ensure their product quality to their quickly approaching record of 150 million subscribers, Scott Kramer, manager, Sound Technology/Creative Technologies & Infrastructure at Netflix, breaks down some of the most common questions asked amongst our production and post mixer peers when attempting to adhere to Netflix Sound Mix Specifications and Best Practices.
What do we need to know about the new higher quality audio feature?

Following feedback from the Stranger Things creative team, we learned there was room for improvement on our sound quality. We put together an engineering team which worked for over a year to add adaptive streaming to our audio. A bitrate ladder allows quality to rise and fall as network bandwidth requires. Most TV devices are capable of receiving improved audio. Depending on your device and bandwidth capabilities, the bitrate you receive may vary:

- 5.1: From 192 kbps (good) up to 640 kbps (great/transparent)
- Dolby Atmos: From 448 kbps up to 768 kbps

The goal of this project is all about protecting the creative intent of the mixes, and sending a studio-quality experience to our members. We expect these bitrates to evolve over time as we get more efficient with our encoding techniques. Improvements to AAC stereo streams (mobile, PC) will come later this year.

In this same document, you ask that “Each file will be named for its corresponding scene and take, as well as included in the metadata for each file.” Depending on the model of audio recorder used, it’s usually an either-or situation. For instance, Sound Devices actually titles the filename: SR002-48B-011 for Scene 48B on sound roll 002. Meanwhile, Zaxcom will name the file with the folder name and the file number. For instance, SR002005 would be the fifth file in the SR002 folder. Then metadata extraction software applied later usually replaces the filenames with scene and take information from the metadata. Are you asking for filenames and metadata to be redundant? If so, have you found benefit in this method in assembling dailies later?

It is not a specification, but a recommendation. The spirit of this request is to have scene and take clearly labeled for picture assistants and sound editors. There’s consensus that scene and take in the metadata is essential for automatic tools in the post process to marry and assemble audio. We’ve found that redundancy in filenames and metadata doesn’t hurt when the recorders are capable of it.

There is a request for series projects to use different folders for each episode and to avoid duplicate file names. If scenes are recorded on the same date due to location availability, etc., do you still wish for separate folders to be used? Duplicate date folders with varying names may complicate assembly later in post. What is your recommendation in cases such as this?

One folder per day is the overwhelming industry standard and seems to be most convenient for all involved. If scenes from different episodes are...
recorded in the same day, a naming convention for files can include episode name.

**How many of your programs approximately are requiring theatrical 5.1/2.0 mixes, as well as near-field 5.1/2.0 mixes? What is the percentage that are requiring Atmos deliver at this time?**

For original features and indie features, theatrical 5.1 is on the deliverables list. These are used only for theatrical DCP screenings. We prefer that crews work on the near-field mix first and adapt a theatrical mix later. We understand that this is not the traditional way, but in the vast majority of cases, the theatrical mix will be heard very little. We prefer that mixers work on the near field as the “hero” deliverable—simply because that’s what the audience will hear. We request Atmos for many features and series. For other content categories (indie features, international originals, documentary, comedy, unscripted, licensed), we ask for Atmos when it makes sense for the creatives and there is budget to pay for it.

**What was your intention in using ITU-R BS.1770-1 versus ITU-R BS.1770-3 and to deviate from the broadcast standard of -24 (\(+/-2\)) LKFS with a loudness recommendation of \(-27 (\+/-2)\)?**

1770-2, -3, and -4 nearly always include full program-gating. We've found that measuring content based on the full program results in average dialogue levels which vary widely from title to title. Loud action sequences in one episode will effectively push the dialogue down, while another episode without action will have louder dialogue—all to hit the full program spec. We moved to ITU-R BS.1770-1 dialogue-gated because it does not normally include a program gate, which would add too many variables to readings.

We chose \(-27 (\+/-2)\) 2 LU simply because that’s where our content library clustered—we wanted to change what is being measured but not change how things are mixed. Because most dialogue sits at \(-27\) for our content, it caused the least disruption for those delivering to us. We joined NBCU, HBO, and CBS in moving to dialogue-gated measurement. Disney Home Entertainment now also uses \(-27\) LKFS \(+/-2\) LU dialogue-gated.

To learn more about the consequences of algorithms to measure audio program loudness on your mix, check out Jon Greasley CAS and Greg King CAS’s article in the CAS Quarterly Spring 2018 edition entitled “Stay Calm and Carry on Mixing.”

**We like very much that you specifically describe the desired fold-down process. However, your mention of a possible optional Low Frequency Effects (LFE) channel at \(-12\) dB is unusual. Why this reduction?**

The ITU BS.775-1 fold-down spec drops LFE, and some engineers feel LFE content can create distortion in stereo mixes. On the other hand, most mixers I've come across keep LFE between \(-8\) to \(-12\). \(-12\) was a compromise number given the concern about distortion. We may instead define a range in a future revision.

**Regarding Atmos deliverables, what’s the purpose for requiring delivery of the recorder stems, Atmos DAMF file, and ADM?**

We removed the stem requirement with our v2.0 Atmos spec. The BWAV ADM is our primary streaming deliverable, and we request the DAMF for archival because it’s the primary master file generated by the Dolby Renderer.


Prodicle Help Center (help.prodicle.com) is the primary source of truth for Netflix documentation and specifications. Click the link for Production and Post Technical Specifications and Guidelines.
Can you briefly talk about the Post Partnership Program and what it means to Netflix?

The Netflix Post Partnership Program (NP3) is an engagement program that showcases a roster of post-production partners supporting Netflix-commissioned workflows. While there is no requirement for post-production finishing partners to be in the NP3, membership within denotes that a facility has had proper due diligence—including onboarding, infrastructure vetting, security review, testing, and training in Netflix workflows and applications. For the partners, this allows them the opportunity to gain a Netflix “badge” which displays they’ve been through the process and presents them with a central business point of contact to help provide information, access to engagement opportunities, and regular communication. Productions working on Netflix content are not required to use NP3s for finishing services, though this program helps to give visibility and recommendations on facilities. More information and details on how the NP3 program also supports other services such as language dubbing, audio description, and master QC, can be found at np3.netflixstudios.com.

How much does Netflix feel drawn to conform to existing external broadcast and streaming technical specifications?

We strongly value consistency across the industry and we conform to existing standards whenever possible. When we diverge from others, it’s in pursuit of higher quality. We hope others will join us when our changes make sense for the broader industry as well.

Could you briefly talk a little about how you come up with these specifications (case studies, internal research, industry feedback) and how you determine what will be a “best practice” and “technical specification”?

The specifications evolve over the years in relation to the feedback we receive from creative partners. As new issues arise, we add to the language to prevent future problems and to maintain quality. For example, we didn’t have detailed instructions on fold-down until we had stereo mixes on a few shows that were made wrong, harming the creative intent of the mixes.

In my view, specifications should always be “must haves” rather than “would be nice.” We must have peaks which don’t exceed -2 dBFS, because some of our codecs are based on open standards and some decoders can create audible distortion if audio goes to 0. We must have a loudness standard so audio levels on the service will not vary too much from title to title. On the other hand, we make loudness range measurement optional. While managing dynamic range is essential to creating a great broadcast mix, we didn’t feel another specification made sense here. We publish “Best Practices” sections as advice which crews should follow only if they find it useful. Creative freedom is one of our core values, so we try to only make specifications that are absolutely necessary.

Finally, what would you describe as a mission statement for your technical specifications?

Quality, Longevity, Authenticity. The specifications exist to help protect your creative vision at the best quality for as long as possible.\footnote{Zac Epstein, “Netflix will release 62 new original shows and movies in May—here’s the complete list”, BGR, https://bgr.com/2019/04/15/netflix-may-2019-releases-list-all-original-shows-movies/ (Accessed April 27).}
The Consumer Electronics Show (CES) is a good place to catch up on trends in the home video and audio industry. This year, there were more than 182,000 attendees, 6,600 media, and almost 70,000 exhibitors. Here we highlight some of the most notable aspects of the conference.

Much like last year, the show was overwhelmingly featuring 4K video, as well as introducing more 8K sets (still at very high prices). In addition, foldable (or rollable) screens were being featured.
DTS/IMAX Enhanced
is now available for home use. Enhanced components will be approved and labeled for home usage. Post-production specialist (well known to members of the sound community) Bruce Markoe introduced the system: “IMAX has been around for 50 years. All of the theaters are built the same, and we have our own hardware. Theaters are brighter and have a higher contrast ratio. 4K masters are being redone for these home systems. Immersive format is 12 channels with bass management. Filmmakers remix into the IMAX format. Filmmakers like the IMAX format because the playback system is transparent.”

Chinese manufacturer TCL has entered the home video market at the top by focusing on the mid-range market, pointing out that less than one percent of monitors sold cost more than $2,000.

Living in Digital Times declared the “Last Gadget Standing” to be the Shure MV88+ microphone intended for use with a smartphone as a video kit. The mic is $249 and has received positive reviews.

RCA did something different this year; they are showing a traveling exhibit called “110 Years of Magic.” This exhibit will be at many major trade shows this year. If you are a fan of audio/video history, stop by and check it out. They have radios going back to their earliest days. For those of us who remember the ‘60s and ‘70s, this exhibit will induce a nostalgia from seeing so many audio and video products that we used as consumers.
The Cinema Audio Society is now accepting submissions for its 2019 Student Recognition Award. We are excited to add our new format for application submission. Students will be offered the option of submitting either a written application or a video application.

This award is intended to encourage students’ interest in audio production and post-production sound mixing, and to recognize individuals with exceptional and demonstrated passion for the field. The selection criteria will focus on the student’s responses to questions via written or video application, as well as the professor’s recommendation letter.

Five finalists will be selected and invited to attend the 2020 awards dinner as guests of the CAS where the Student Recognition Award winner will be announced. (Travel expenses are not included) The Award recipient will receive a $5,000.00 cash award.* All 5 finalists will take home a gift bag filled with a variety of outstanding tools of the trade contributed by top audio manufacturers.*

Eligibility for the Student Recognition Award is open to any student enrolled in a Bachelors or Masters degree program at an accredited college or university. Students may be pursuing any major but should have a demonstrated interest and some experience in “sound mixing” for audio production and/or audio post-production for film and television. (*sound editors/designers will not be considered)

Please encourage all qualified students to apply.

Sincerely,

Karol Urban, CAS President
CAS STUDENT RECOGNITION AWARD

CAS will begin accepting applications on June 3rd 2019. All applications must be completed and submitted online no later than October 31st 2019. The CAS Student Recognition Award will be announced at the 56th CAS Awards on January 25th 2020.

ELIGIBILITY

Students must be enrolled in good standing at an accredited 4-year degree-granting college or university during any school term between Jan 1, 2019 and Dec 31, 2019. Students at US or International institutions are eligible provided the school is accredited. All application materials must be submitted in English. Student applications must be accompanied by a recommendation from a professor or instructor.

SELECTION CRITERIA

The CAS Student Recognition Award is given to an individual based on the recommendation of an instructor or professor at the student’s college or university. The award is given on the basis of the student’s accomplishments, enthusiasm, and demonstrated potential in the field of sound mixing and/or sound recording for film and television. It is not an award of excellence based on a specific student project. This award is intended for those students who have aspirations in furthering their audio careers, this is not an award for those seeking a career in film-making or sound editorial.

APPLICATION REQUIREMENTS

1. Students must submit the following materials online:
   A. Unofficial transcript (please highlight and explain relevant coursework).
   B. List of projects in which you were the primary person responsible for production and/or post-production sound mixing.
   C. Either written or video application.
   D. Once you have completed and submitted your portion of the application, a link will automatically be sent to your professor (via the email provided) to write their recommendation. *We highly recommend that you follow up with your professor on receipt of this link! (Applications without recommendations will be considered incomplete).

   Shortly after submitting your application and required documents, you will receive an email confirmation that your materials have been received.

   5 finalists will be selected and then be asked to submit a 5-minute example of their work and a 1-2 min explanation of the submission and their role in it.

   Applications and all accompanying documents must be submitted no later than October 31st 2019 at 11:59 pm PST. Incomplete or late applications will not be considered.

   Please check the CAS website for student nomination list during the week of November 18th, 2019.

2018 AWARD RECIPIENT

Anna Wozniewicz, Chapman University

ADDITIONAL INFORMATION

• The CAS Student Recognition Award will be announced and presented at the 2020 CAS Awards Dinner. Five finalists will be invited to attend the Awards Dinner as the guests of CAS. Any related travel expenses are the responsibility of the student nominees.

• $5000.00 will be awarded to the selected student. Any related tax liability is the responsibility of the student.

Please visit our webpage for the online application.
CinemaAudioSociety.org

*Any related tax liability is the responsibility of the individual.
The Cinema Audio Society presents the next episode in our Podcast Series

In Conversation

Moderated by Peter Devlin CAS and featuring Simon Hayes and Chris Munro CAS

This two-part podcast was recorded in London at Warner Bros. De Lane Lea in November of 2018.

Our thanks to Teri Dorman, Bob Bronow, and Icemen Audio for their work on the podcast.

http://CinemaAudioSociety.org/podcasts/
CAS Awards and Student Recognition Award Award Timeline

Due to changes in the overall awards season calendar, there are considerable changes in the CAS timeline. The CAS has also taken this opportunity to change the television categories eligibility dates to contenders that air between January 1, 2019, and October 31, 2019. These dates have been chosen in order to prevent any “orphaned” episodes that may not have completed production by the entry deadline. The timeline for next year will be November 1, 2019, thru October 31, 2020. Providing an eligibly period that ends close to our entry deadline allows more members of the television community to have the opportunity to submit their work, participate and be celebrated. The motion picture eligibility period will remain January 1, 2019 thru December 31, 2019.

56th CAS Awards Timeline:

- Entry Submission Form available Online on the CAS website at www.CinemaAudioSociety.org Monday, September 23, 2019
- Entry Submissions due Online by 5 PM PST, Monday, November 4, 2019
- Nomination Ballot Voting Begins Online – Thursday, November 21, 2019
- Nomination Ballot Voting Ends Online – 5 PM PST, Wednesday, December 4, 2019
- Outstanding Product Submissions due Online by 5 PM PST, Thursday, December 5, 2019
- Final Nominees in each category announced Tuesday, December 10, 2019
- Final Voting Begins Online – Thursday, January 2, 2020
- Final Voting Ends Online – 5 PM PST, Tuesday, January 14, 2020
- All winners announced at the 56th CAS Awards, Saturday, January 25, 2020

2019 Student Recognition Award (SRA) Timeline:

- Entry Submission Form available Online on the CAS website at www.CinemaAudioSociety.org Monday, June 3, 2019
- Entry Submissions due Online by 5 PM PST, Monday, October 21, 2019
- Finalists announced Tuesday, November 19, 2019
- Winner announced at 56th CAS Awards, Saturday, January 25, 2020

56th Annual CAS Awards
Saturday, January 25, 2020
It has been a slow quarter to say the least, but Robert Sharman CAS managed a pilot with my great crew, Dennis Fuller and Kelly Lewis. They also joined me on reshoots of the Netflix movie Sextuplets. It was a few days of motion control and Pro Tools/earwig playback with additional help from Chet Leonard on PT and Lawrence Razo on QTAKE. Hoping that next quarter will be even more fruitful!

Rod Gurulé CAS wrapped on The Gifted S2 and the Fox/ABC pilot Heart of Life with Local 693 boom op Hunter Moore and Local 479 utility Stokes Turner.

Frank Morrone CAS and Colette Dahanne are mixing Criminal Minds, Why Women Kill, and The Hypnotist on Stage Six at Westwind for Technicolor.

Devendra Cleary CAS has been enjoying some day playing after finishing Schooled for ABC in January and finishing a pilot for CBS called Jane the Novela in March! He also contributed as a writer on the latest ‘Meet the Winners’ articles, as well as selling two more DC-TRM sound carts to fellow sound mixers; one in Los Angeles and one in San Francisco. He is looking forward to a summer with a combination of a little work and a little vacation. A summer trip to Finland is on deck!

Steve Weiss CAS mixed a very nice pilot for CBS/Warner Bros., entitled Courthouse with Stacey Washer on boom and Dennis Carlin handling utility. Hoping by the time this is read, it will be a series pickup!

Gary Bourgeois CAS once again in Moscow mixing Journey to China, a Schwarzenegger/Chan fantasy adventure in a beautiful large Atmos room at Mosfilm.

Philip Perkins CAS has been busy. He mixed the doc features Alternative Facts, A Concerned Citizen, and Bitter Legacy, all for PBS, as well as a handful of shorts, and has begun work on Season 3 of Two Scientists Walk Into a Bar. He also mixed live recordings for the Roscoe Mitchell Quartet, new concert videos for Kronos Quartet and for the ballet Polestar, and did the final PBS remix for Norman Mineta. In family news, Prism, an opera for which Philip’s daughter Roxie Perkins wrote the libretto, has won the 2019 Pulitzer Prize!!

Karol Urban CAS MPSE finished the feature Down for the horror series Into the Dark for Hulu, with Marti Humphrey at The Dub Stage. She also just wrapped on ABC’s Single Parents, mixing with Ross Davis and BET’s Boomerang, mixing with Kurt Kassulke CAS. Finally, she is enjoying the season ramp down as she finishes two shows for Shondaland: Grey’s Anatomy Season 15 and Station 19 Season 2.

Brendan Beebe CAS, Rebecca Chan, and David Beede had a great second season of 9-1-1 at Fox for Ryan Murphy Universe.
Stephen Fitzmaurice CAS and David Di Pietro CAS recently finished mixing Season 5 of *How to Get Away with Murder* and Season 2 of *For the People* for ABC. They are currently wrapping up Season 1 of *Tell Me Your Secrets* for TNT. David is also in the middle of mixing Season 1 of *Bless the Mess* for ABC.

Here’s what’s going on in the Universal sound department. Our talented CAS members managed to deliver 16 pilots for all four of the major networks. With an even 8-8 split between one hour and half-hour. All the time keeping the momentum going with our regular shows.

### In Television:
Recently, we just completed the remodel and full theatrical Dolby Atmos installation in Mix-1. It’s a thing of beauty and doesn’t sound too shabby either where Mark Fleming CAS and Myron Nettinga CAS are mixing *Agents of S.H.I.E.L.D.*, Steven Spielberg’s *Amazing Stories*, *Pearson* (*Suits* spinoff), and *The Kids Are Alright*. In Mix 2, Steve Pederson and Dan Leahy are mixing *Jack Ryan*. Mix-5 is Peter Nusbaum CAS and Whitney Purple who are mixing Black-ish, Grown-ish, AP Bio, Last Man Standing, Will & Grace, No Good Nick, Cool Kids, and Atypical. At Mix-2, West Wind Media, Keith Rogers CAS and Andy King CAS are busy mixing *The Man in the High Castle*, *Ink* (aka *Magic Hour*), and *Enemy Within*. At Mix-A, John Cook CAS and Bill Freesh CAS are mixing *Deadwood: The Movie*, *Veep*, *Brooklyn Nine-Nine*, *Superstore*, *Whiskey Cavalier*, *The Kids Are Alright*, and *The Good Place*. Mix-B has Rusty Smith CAS and Bob Edmondson CAS rocking on *The FBI* and *Good Girls*. Mix-C is Pete Reale and Todd Morrissey CAS, who are mixing *Chicago Fire*, *Chicago PD*, and *Suits*. And Gregg Watkins CAS and Derek Marcil CAS are at Mix-G mixing *Chicago Medical* and *Law & Order: SVU* Season 20.

### In Features:
Over on the Hitchcock Theater, Jon Taylor CAS and Frank Montano just wrapped up *Pokemon Detective Pikachu*. Up next for the team is *Fast & Furious Presents: Hobbs & Shaw* for Universal, with director David Leitch and picture editor Chris Rouse. Mix-6 has faders flying with HBO’s *Deadwood: The Movie*, mixing in Dolby Atmos, with John Cook CAS and Bill Freesh CAS. Mandell Winter is supervising.
From left: Chet Leonard, Dennis Fuller, Jeff Snyder, Robert Sharman CAS, Lawrence Razo, Kelly Lewis on the set of a *Sextuplets* reshoot.

Samuel Cohen CAS is mixing a French film starring Berenice Bejo and directed by Vincent Cassel. This is his first film with the Déva 24 and the mixer Oasis.


Gerald Beg CAS tells the crew, “Hold for the plane! ... OK! We’re good!”

Here you see Junior, Gaby’s son Koen, and Gaby de Haan CAS recording the dialogue for the Dutch short *Het laatste verhoor*. This scene had eight pages of dialogue, four actors and a circle track. We nailed it!!!

Season 2 of 9-1-1 with Brendan Beebe CAS, David Beede, and Rebecca Chan. “118 Engine Down!”
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CONGRATULATIONS TO ALL THE NOMINEES & HONOREES OF THE 55TH ANNUAL CINEMA AUDIO SOCIETY AWARDS

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A STAR IS BORN

FAHRENHEIT 11/9

TOM OZANICH RE-RECORDING MIXER
DEAN ZUPANCIC RE-RECORDING MIXER
JASON RUDER RE-RECORDING MIXER
THOMAS O’CONNELL ADR MIXER

ANDY KRIS RE-RECORDING MIXER
LEE SALEVAN RE-RECORDING MIXER