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John Storyk, Beth Walters and a Life of Science With Style

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On the Cover: For more than 50 years, the inimitable John Storyk, who designed Electric Lady Studios for Jimi Hendrix in 1969, has helped shaped the very look and functionality of the modern studio. Pictured here with his wife, Beth Walters, pictured here on West Lake, Hangzhou, China.

Photo: Víctor Cañellas, WSDG China Representative

Mix, Volume 44, Number 6 (ISSN 0164-9957) is published monthly by Future US, Inc., 11 West 42nd Street, 15th Floor, New York, NY 10036. Periodical Postage Paid at New York, NY, and at additional mailing offices. POSTMASTER: Send address changes to Mix, PO Box 8518, Lowell, MA 01853. One-year (12 issues) subscription is \$35. Canada is \$40. All other international is \$50. Printed in the USA. Canadian Post Publications Mail agreement No. 40612608. Canada return address: BleuChip International, P.O. Box 25542, London, ON N6C 6B2.

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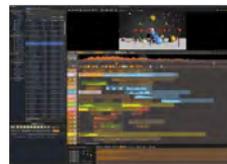


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KEYBOARD PRESENTS: THE BEST OF THE '80s

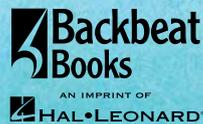
THE ARTISTS, INSTRUMENTS, AND TECHNIQUES OF AN ERA

edited by Ernie Rideout, Stephen Fortner,
and Michael Gallant

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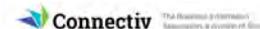
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FUTURE US, INC.

11 West 42nd Street, 15th Floor, New York, NY 10036



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Current

From the Editor

The Nexus of Art, Architecture and Technology

In August Electric Lady Studios in New York City turns 50 years old, and as one of a handful of OG modern recording studios in the world, it's still kicking, still hosting sessions and still reflecting the vibe of its original owner, Jimi Hendrix, at 52 West 8th Street. It's dark inside, isolated from the world. It's a musician's playpen in that early 1970s, Golden Age of Recording, man-cave sort of way.

Not far away, at 520 West 27th Street in Tribeca, sits Jungle City Studios, the jewel of today's New York City recording scene, owned and operated by Grammy-winning engineer Ann Mincieli, who does most of her work with the amazing Alicia Keys. It is also a musician's playground, though it sits on the tenth floor and offers a view of the Highline through its floor-to-ceiling walls of glass, opening up to the magic of the city for inspiration. It is as light as Electric Lady is dark. It opened in 2011.

Both were designed by acclaimed architect John Storyk, and together they reflect both the consistency of his work over five decades and the changes in his style in adapting to modern trends. Back in the 1980s, he started introducing more glass and light into his designs, learning to work with the reflective surfaces rather than shying away from the inherent challenges. When digital technologies started to appear in the late 1980s, and the size and function of control rooms began to change, with more artists taking control of their own recordings, Storyk saw the changes ahead and his little company began to grow. He has always been in tune with the times.

"It seems odd now, but when I look back over the years, everything I've designed has been a project studio, even before the term existed," Storyk says. "I've come to learn that the actual drawing, the physics, the geometry—that's the easy part. The hard part is in finding that emotional connection of the owner or the artist to the space. It's their room, their project studio, and it should reflect the way that they work. I've thought about that on every studio I've designed."

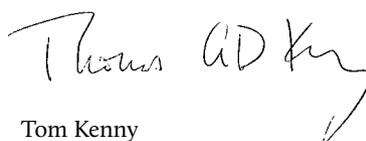
Between Storyk himself and his team at Walters-Storyk Design Group, we're talking about more than a thousand studios, all around the world, from traditional commercial music recording, to university teaching environments, to the emergence of today's podcast facilities. To Storyk, each has its purpose; each reflects the owner's passion. Studio design is the nexus of art, architecture and technology, he is fond of saying. And he seems happy today, talking from his second home in Akumal, Mexico, looking out at the Caribbean while his wife, Beth Walters, paints on a canvas in the background. Fifty years of living life at the nexus has turned out pretty well.

Last year, with the Electric Lady anniversary still many months away, the team at WSDG began planning a yearlong series of events to honor Storyk's 50 years in studio design. It was to kick off with a grand party at Le Poisson Rouge, a restaurant he had designed, during the October 2019 AES Convention, followed by a series of celebrations throughout the year in different locales around the world. Deposits were made, signs were printed, and then one night, Storyk says, he woke up at 3 a.m. and thought to himself, "I can't do this. It just doesn't feel right. Fifty years. It feels like I'm being put out to pasture."

He told the staff the next day, and, after the initial shock wore off, longtime friend Bob Skye piped in, "What if we call it 'The First 50 Years?'" Storyk immediately changed his tune. "I can live with that," he thought. A more intimate dinner was planned for close family and friends. His children flew in and surprised him. Eddie Kramer was there, as were Howie Schwartz, Howard Sherman and a host of clients, friends and colleagues. It was a wonderful night, much more fitting the Storyk style. Two days later, he was back at work.

That humility, of course, is countered by a bit of New York swagger. He is aware of what his work has meant to the industry at large. Storyk is a smart man, a tall man with a full head of hair and a wide range of interests, from the teachings of Richard Feynman to the world-changing innovations of the Wright Brothers. He is a student of architecture and the arts, going back to the Greeks. He studied philosophy at Princeton while pursuing his passion for architecture, a career path that had been whispering to him since age 11, around the same time he developed his passion for music. He spent the summer of 1969 studying with Buckminster Fuller. He likes Broadway musicals, and he's a lifelong Yankees fan. He is a most interesting man.

For the past 30 years, every June issue of *Mix* has been focused on Acoustics and Studio Design, with the cover shot selected from among the dozens of entrants from the world's top studio designers for the annual "Class Of" photo feature. This year, we chose to break form and honor John Storyk's First 50 Years. He's earned it.



Tom Kenny
Editor

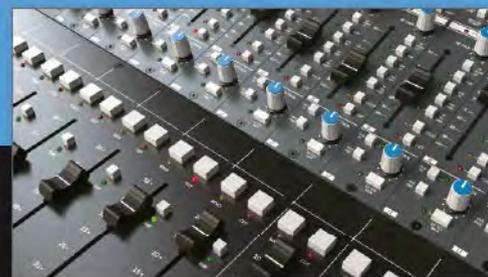


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Bringing Out the Funk In Utah

Veteran composer and songwriter Jim Funk was considering a number of mixing console options for Studio A at his newly built Funk Studios in Utah when he started talking with Phill Scholes, Solid State Logic's Los Angeles-based vice president of technical operations. "After a few conversations I was a lot more educated on SSL, their preamps and what the Duality could offer," says Funk, who unveiled his flagship control room with a Solid State Logic Duality delta Pro-Station SuperAnalogue console as its centerpiece.

Initially conceived as a two-room facility, it has since expanded to three. Funk engaged Jerry Steckling of JSX Audio to design the complex, which features a 1300-square-foot Studio A tracking space, dubbed The Stage, offering 23-foot ceilings, custom variable acoustics and four iso booths, one housing a Yamaha C7 grand piano with Disklavier.

Funk and his staff were already predisposed toward SSL consoles, having installed an XL Desk in Studio B a year before the Duality arrived. "I think a big part of the decision to go with the Duality was the experience I was having on the XL Desk for the first year that I was working for the company," says recording engineer Stoker White, who works for Funk's long-established musical theater production track recording business.

"I was using a variety of outboard mic pres but always returning and summing through the XL Desk," White recalls. "As far as using it as returns while I was tracking, I loved the easy availability of the bus compressor.



Funk Studios has a new Solid State Logic Duality console.

When we started looking at SSL consoles for Studio A, having used the XL Desk for a year, I felt really comfortable with the sound I'd been getting."

Freelance recording and mixing engineer Michael Greene primarily works out of Studio C, which accommodates immersive IMAX 12.0 and Dolby Atmos 7.1.4 mixing projects as well as overdubbing, using its associated iso booth, equipped with a Yamaha grand piano, or tielines from The Stage. Greene's large-scale tracking projects in Studio A have included jazz records as well as film and video game scores.

Both engineers also enjoy working with the Pro-Station, a version of Duality that offers an alternate center section lay-out, wrapping the two bays of 24-channels around the operator. "The HUI integration in the Duality is spectacular," says Greene. "I don't even realize or ever feel like I'm using HUI protocol, which I couldn't say when I have used it with other control surfaces. It's really bulletproof and integrated in a way that's really stable and effective." ■

dCS Legends Awards Expands

Last October at the AES Convention, Data Conversion Systems launched its dCS Legends Award series and promotional campaign with the announcement of mastering engineer Bob Ludwig as its first recipient. Building on the enthusiastic reaction, dCS recently announced a multifaceted music education and promotion addition to its program.

"dCS is overwhelmed by the positive response that our dCS Legends Award campaign has received from both music professionals and enthusiasts alike," said David J. Steven, Managing Director of dCS. "We have been working closely with the Recording Academy Producers & Engineers Wing to identify and tell the incredible stories behind a diverse group of legendary engineers, and we plan to



Bob Ludwig



Chuck Ainlay

continue this effort through the remainder of this year."

The dCS Legends Award was conceived to acknowledge the outstanding efforts of a select group of recording, mixing, and mastering engineers who have strived throughout their careers to deliver the finest music listening experience possible.

Since its debut with Bob Ludwig last Fall, dCS has launched supporting print and digital campaigns featuring iconic engineers Al Schmitt,

Tony Faulkner, and Chuck Ainlay. Similar campaigns are scheduled for such luminaries as Frank Filipetti, James Guthrie, Leslie Ann Jones, George Massenburg, John Newton, Elliot Scheiner, Mark Wilder, and the late Ed Cherney, who dCS also honored with a contribution to the COVID-19 Relief Fund established by the Recording Academy and MusiCares.

Each new dCS Legends Award includes a variety of other supporting media. These include website banners, video clips, in-store materials, and exclusive audio interviews as part of podcast series titled "The Other Side of the Glass," available from the dCS Legends microsite (www.dcslegends.com) and services such as Apple Music and Spotify. Each dCS Legends Award recipient also receives a limited-edition, commemorative version of dCS' acclaimed Bartók Digital-Analog Converter.

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MUSIC

Surprise Surprise!

There's a New Album from X

By Barbara Schultz

On April 22, X fans languishing in quarantine received a surprising gift from the legendary L.A. punk band: Without warning, the band suddenly released its first album since the early '90s, and the first album made by all four original members since 1985.

Alphabetland is also the first ever X album to credit all four bandmembers—drummer DJ Bonebrake, singer Exene Cervenka, bassist/singer John Doe, and guitarist Billy Zoom—as songwriters. So, not surprisingly, it sounds like X!

Though the vibe of some of the new songs seem suited to our current woes (there's even a song called "I Gotta Fever"), all of the tracks were recorded pre-pandemic, starting in January 2019, by producer/engineer Rob Schnapf and engineer Matt Schuessler.

Seeing as they hadn't been in the studio together in 35 years, the bandmembers didn't want to put pressure on their initial sessions. They weren't even saying they were making an album. Instead, they started by revisiting a batch of songs that hadn't previously made it past the demo stage, or that they'd recorded during a couple of years when Zoom was not with the band.

"We went into 64Sound (Highland Park, Calif.) and that first session was their re-entrance," Schnapf observes. "We were turning those valves, opening up those pipes to their creativity. The interesting thing is there's still all that inner creative tension in the band. It's what makes bands good. Everybody had their voice. Everybody was listening to one another. But that tension is there."

Snapf and Schuessler kept rhythm parts from 64Sound. They miked Bonebrake's kit with



The original members of X: vocalist Exene Cervenka (front) and (L-R) drummer DJ Bonebrake, guitarist Billy Zoom (and his famous smile) and bassist/vocalist John Doe

Photo: Kristy Benjamin

"The interesting thing is there's still all that inner creative tension in the band. It's what makes bands good. Everybody had their voice. Everybody was listening to one another. But that tension is there."

— Rob Schnapf

Snapf's modded Shure SM57s on top and bottom snare, a Sennheiser 421 on rack tom, AKG D112 on floor tom, Sony C48 overheads and a Soundelux U95 outside the kick drum.

"I also had a Stager SR1A ribbon mic over the kick, in between the floor and rack tom, and a U47 [capturing] M-S," says Schnapf. Doe's bass went into Schnapf's Ampeg Fliptop and was miked with a Bock 195 into a CAPI Heider mic pre, an Empirical Labs Distressor, and a Pultec EQP1A.

Next, the project moved to Schnapf's personal studio, Mant Sound, in the Glassell Park part of Los Angeles. Here Doe and Cervenka nailed down keeper vocals for the first batch of songs, and Billy Zoom overdubbed final guitar parts separately with the engineers.

"Billy likes to do that without other people around," Schnapf says. "He would set up in the control room with his amp and we'd run a cable

to his custom 2x12 cabinet, which was out in the studio, and mike that with a 57 and a ribbon—probably a [Beyerdynamic] m160 or a Stager SR2N. Billy builds his own amps, so that's his world, and in terms of his guitar, he's all Gretsch power."

Exene sounded best on a Shure SM7 that the engineers put through a Coil Audio CA70 into a Pultec EQP1A and an old UA 1176. Doe sang into a vintage Russian Lomo 1989 tube mic into a Coil CA70, an Empirical Labs Distressor and a Tube-Tech CL 1B compressor.

"A lot of times, Exene and John would do vocals together," Schnapf says. "We'd set up so that they were looking at one another and they could have that dialog."

Two older songs from sessions in 64Sound/Mant Sound made it onto the album—"Cyrano de Berger's Back" and "Delta 88 Nightmare"—as

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well as one new song, “Angel on the Road,” a poem by Cervenka that the band set to a raucous track.

Most of the new songs that the band wrote were recorded in a similar fashion, but this time drums and bass were recorded in Studio 2 at Sunset Sound.

“That’s one of my favorite places,” Schnapf says. “I thought the Doors connection would be cool [because Doors keyboardist Ray Manzarek produced X’s early studio albums]. They loved Ray, they loved The Doors. No matter how old you are, music fans are music fans.

“What was different about this second batch,” Schnapf continues, “is that the songs were coming together on the floor. We had DJ, John and Billy set up in the room. Amps were isolated, and Exene was in the piano room. We were working on songs that they didn’t get the time to play live beforehand, so it felt like we were all going along on a ride.”

“Working in Sunset was an incredible experience for me as a younger engineer,” says Schuessler. “Rob has been making records there for so long, so not only did I get the learning experience of working at that studio and hearing how it sounded, but also I got to work with someone who really knows that room and all the gear that they have.”

In Sunset, they used the preamps in Studio 2’s Neve 8088 console. Miking schemes started out largely the same as in the previous sessions, but Schnapf says those choices evolved during their time there. “It was daily trips to the mic locker: a pair of 47s, a pair of 67s, and there were Coles. On drums, I think I used an RCA 44 up close instead of my Stager. We also had Pultecs, 1176s—the racks are just full of everything you need,” Schnapf says.

Vocals and guitars were again tracked in Mant Sound, and then the engineers and Doe stayed at Mant Sound to mix on Schnapf’s customized MCI 428B console.

“By the time we’re mixing, though,” says Schuessler, “we’re not really fixing things. We’re not problem-solving, because all along the way when we’re tracking, we’re rough-mixing, so



by the time we get to the mixing stage, things already make sense and we’re just into the fun part of mixing.”

Schnapf explains just how customized his console is and what constituted the “fun part”: “John Musgrave hot-rodged my 428B to the point where, I think only the transformers are original,” he says. “John broke up the quad bus into two stereo buses. One is like Sunset Sound’s Studio 1 console with some Jensen 990s, and the other has vintage Neve 283/Marinair transformer amp cards.

“When I first started using the board, I thought I would send some things to one stereo bus and some things to the other, like drums and bass to the Neve and the pretty stuff goes to the hi-fi bus,” he continues. “But then I discovered the brilliance of the fact that John added a series parallel switch, so you could run the stereo buses parallel with one another, or you could take one bus and serially push it into the other, or you

could flip the switch the other way and take the Sunset bus and run it into the Neve or the Neve into the Sunset. So I was experimenting and I sent the mix to both buses. And then I took the Sunset bus and drove it into the Neve bus. Basically, I was saturating the transformers. And the saturation manifests itself in this harmonic that brightens and opens up the Neve bus. You get the Neve low end and it opens up, and it becomes a magical thing!”

The Alphetland mix was already under way when the pandemic hit. Doe headed back to his home in Austin, Texas, before California went into lockdown, and Schnapf and Schuessler communicated with Doe electronically so they could finish the record.

The album ends with the band providing a jazzy, quiet backdrop for a spoken-word piece by Exene: “We have all the time in the world/Until the limitless possibilities/Of youthful infinity/ Turn into mortality...” ■



Photos: Kevin Estrada

The original members of X: vocalist Exene Cervenka (front) and (L-R) drummer DJ Bonebrake, guitarist Billy Zoom (and his famous smile) and bassist/vocalist John Doe.

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Unity, Passion and Commitment Reveal the Power of Music

By Robyn Flans

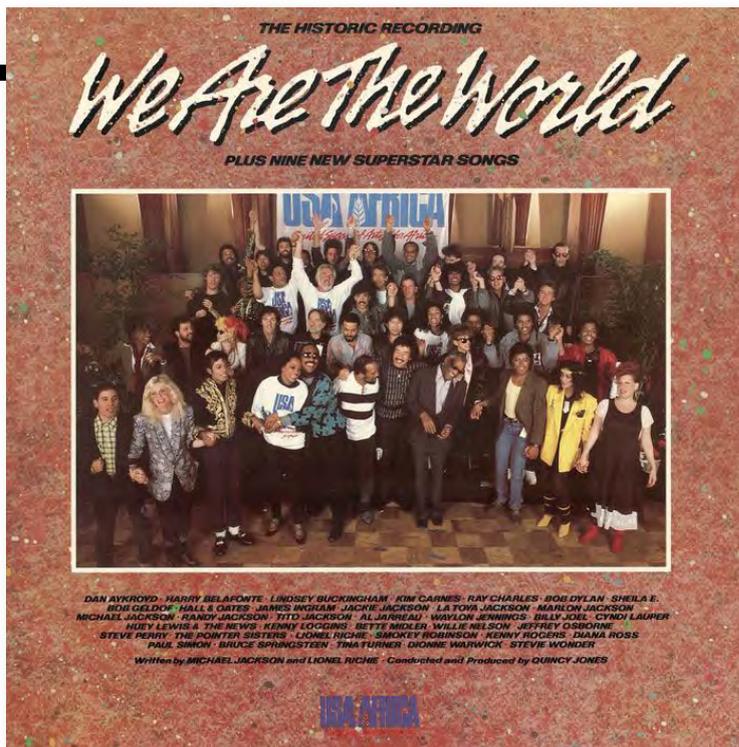
Just as it appears, “We Are the World” was an immense and complex project, but for recording engineer Humberto Gatica, the meaningfulness and depth of his voluntary work has proven the most significant, precious and satisfying job in his storied career.

On the day we talked in early-March, Gatica was phoning from the studio that he leases at Lion Share Studios (a name that he now owns), where the very tracks for this historic musical event were recorded.

“The love and the passion still fill this room where I am,” Gatica says. “This was one song with one purpose—to save lives. The whole process from day one to completion, in terms of recording time until post-production and the record is out, selling, and money delivered, and people getting what they needed in the country of need, took us about four and a half weeks. It was a long process. Those on the production crew were working 14 to 18 hours a day.”

First there had to be a song. Gatica remembers that producer Quincy Jones spent about two and a half weeks just finding the right introduction, in search of what he felt would draw in the masses, because, as Gatica explains, “He needed it to be as strong as a hymn.”

All participated gratis in order to call attention to famine relief in Africa and provide food for the hungry. The process began sometime in the third week of January 1985 when three musicians arrived to cut in studio A of Lion Share Studios in Los Angeles: John J.R. Robinson on drums, Greg Phillinganes on keyboards and Louis Johnson on bass. The studio, then owned by Kenny Rogers, contained a Neve console and 32-track Mitsubishi digital machines, and “obviously we made slaves for several other sources of overdubs and for recording vocals.”



SETTING THE FOUNDATION

Describing the piano miking in a visual manner, Gatica explains: “When you sit at the piano and you put the music in front of you, on the other side of that are two AKG 414 Es, and then where you lift the lid and put the stick up to hold the lid up, right in that area I put an AKG 452 on the right side and an AKG 452 on the left side. The close miking defines, and the other miking gives the air and the space.”

The bass went direct into the console processed through a GML equalizer and Teletronix LA2A, and the drums were miked with Shure SM57s on the tom toms, an AKG 452 on the hi-hat with 20dB pad (so, as Gatica puts it, the information wouldn’t become so aggressive to the mic and he would get a smooth sound). On the snare, he used three microphones: an SM57 and Neumann KM84 on top, placed in parallel angles and taped together so they wouldn’t move, and another SM57 on the bottom at an angle. Gatica used three vintage AKG C12s for the overheads—two for left and right, and one for the ride cymbal.

The track was recorded and then they added a reference vocal so that they could send it out to all the artists to hear. Gatica did the pre-mix.

Previously, the core production team had gone to Lionel Richie’s home

Courtesy of Humberto Gatica



Engineer Humberto Gatica, left, at the console with producer Quincy Jones.



to map out with vocal arranger Tom Bailey who would sing what, and where. He says Bailey “did a brilliant job choosing the voice according to the melody of the song,” so he could figure out where he would place which artist strategically in the choir, first “based on their sound, their tone and the quality of their voice.” When they sent the demo to the artists, they sent each their specific parts, as well.

About a week after the tracking, the big event took place on January 28 immediately following the American Music Awards, since there would be access to lots of artists in town.



Mix engineer Humberto Gatica with Stevie Wonder at the Neve console in Lion Share Studios, Los Angeles, 1985.

Courtesy of Humberto Gatica

having been there since noon the day before.

In the two weeks that followed, several days of overdubs ensued with such players as David Paich, Steve Porcaro and Michael Boddicker on synthesizers, Michael Omartian and John Barnes on keyboards, and Paulinho Da Costa on percussion.

Then the mixing began, also at Lion Share on a Neve console. Certainly one of the main jobs was to select the vocal performances.

“Remember we did six or seven passes,” Gatica says. “I have to select the best line and then I have to puzzle it all together between Lionel Richie to Paul Simon to Kenny Rogers—they all have to be threaded vocally and emotionally correct.”

LEAVE YOUR EGO AT THE DOOR

And so began the ambitious undertaking at A&M Studios sometime after 8 p.m., with the recording of the choir—the three-part harmony singing the chorus “we are the world,” and ad libs with 21 artists that included the likes of Bob Geldof, Harry Belafonte, Waylon Jennings, Bette Midler and Jeffrey Osborne.

There were three M50 room mics, Schoeps microphones up-close for definition, and some Sennheisers for room depth. In the control room Gatica sat at a Trident console and made use of a custom mic pre made by a friend named Eduardo Fayed.

“I used about six or seven layers of microphones to obtain certain dimensions of the sound,” Gatica explains. “And that took a little bit because there were moments when people needed to pay attention to their intonation. Finally that got done.”

He says it took a little while—instead of an hour, it took an hour, forty-five—“A little longer because of so many parts. There were harmonies and counter melodies, sometimes a technical thing occurred. If a noise occurred, we’d have to stop and start again. There were so many people. Somebody might not be singing, somebody might be yelling, we’d have to stop. It was, ‘If you can’t hit those notes, stay the shit out of it! If you can’t do it, don’t even try, you’re going to mess up somebody else.’”

After the choir, there was a break, with some of the choir artists staying on to add lead vocals. Gatica placed six C12 vintage mics in a horseshoe configuration, counting on three people per mic. Each soloist had to lean forward, do his or her line and then get out of the way for the next one to sing their line. They would not have their own preferred mics. “That’s what we meant when we said leave your ego at the door and let us do our job,” Gatica says.

The whole group rehearsed the track six or seven times. “In other words, they had seven times to get their act together,” Gatica states. “Get your shit together on every pass because that’s the way it was; there was no room to retake and retake and retake. But that’s why you had the best artists.”

And that was that. Breakfast from Roscoe’s—“the best chicken and waffles,” according to Gatica—was delivered sometime around 8 in the morning, and artists left sometime around 9 a.m. Gatica left then, too,

Gatica put an edited mix together, and Quincy Jones approved and signed off.

“People were singing in perfect tuning. There was no need for Pro Tooling and retuning, nothing,” Gatica claims. “The challenging part was when you put it together and create a sound that touches and justifies the purpose, and that requires an understanding of how to put it together. It’s like the brilliant director who shoots and shoots and shoots and shoots, and then you have the guy who cuts the right thing and decides what stays on the floor and what stays on the reel. Mixing requires that sensitivity. If the mix is not right, everything you have accomplished has been wasted,” Gatica says..

Despite its challenges, he couldn’t wait until the next day to get back to the studio to work on the project “to continue pursuing excellence, to continue polishing it,” Gatica explains. “Because of the nature of the recording and the circumstances, I remember before recording all the vocals, all the equipment was fairly new, like the mic pre’s, and I prayed that when I would arrive the next day to listen, there would be no buzzes or hums.”

It was a couple of days before he called Quincy Jones, Michael Jackson and Lionel Richie to take the first listen. They gave some input, he did some touch-ups and the following day, Richie, Jones, Stevie Wonder and Kenny Rogers came to listen at 11 a.m. to what was considered the final mix.

“Everyone started crying because here was a record that had never been done before, with an incredible amount of talent, from stars to superstars to legends. I saw Stevie next to me and he was crying and he said, ‘It’s beyond my wildest imagination,’” Gatica says, adding that he spent another day on touch-ups.

That he was honored to be a part of the project that earned three Grammy Awards and raised more than \$63 million for aid to Africa and the U.S. is an understatement for Gatica.

“First, to be asked, then the purpose of the project and the love and the passion of everyone who became a part of it,” he says. “Then watching later when Ken Kragen and the group of people were in Africa delivering something amazing. If you are saving one life, I would say our job was done, but there were many, many, many lives saved. This was the most significant part of my career.” ■



PHOTOS: Courtesy of John Storyk

SERENDIPITY & STUDIO DESIGN

John Storyk & WSDG at the Nexus of Art and Technology

By Tom Kenny

Serendipity,” John Storyk says soon after it’s established that we’re recording. “Maybe we could get the art director to watermark that word and run it across all the pages of the article. That’s the one word that sums up my life. I’ve said that for a long time. Might be kind of cool. I’m sure it can be done in print.”

Hmmmm. He’s an architect, so he thinks visually. And the art director might go along...

“And Beth. We have to talk about Beth,” he interjects, referring to his wife of 31 years, interior designer and textiles/fabrics sommelier Beth Walters. “There is Life BB and there’s Life AB—Before Beth and After Beth. I mean that quite sincerely. None of this would have happened without her. And again, serendipity. We were both invited to the same Thanksgiving dinner back in 1985, and we haven’t been apart since.”

Of course we’ll talk about Beth. It’s the Walters-Storyk Design Group. She’s going to be on the cover with you...

“And we can talk about Jimi, too,” he adds. “I’ve told the story a hundred times, and it never gets old. Talk about serendipity. I was 22 years old. I was an architect just starting out, by myself, living in New York City. It’s 1969. There was no grand plan. Then I get this phone call from Hendrix’s manager, Mike Jeffery, and he tells me that Jimi would like me to design a nightclub for him. I’ve always said that it helps if your first client is a major rock star.”

And away we go. Let the three-hour Zoom session begin...

FROM ELECTRIC LADY TO WSDG

It’s hard to overstate the impact that Electric Lady Studios had on the recording industry when it opened on West 8th Street in August 1970. Storyk didn’t invent the modern studio; not by any means. A&R and MediaSound reigned in New York. Record Plant New York and L.A. emerged at about the same time. Tom Hidley was being noticed. Bill Putnam had built some amazing rooms. Later came Vincent Van Haaff in 1970s Los Angeles. Still, nothing quite epitomized studio life at the time



At work in the Highland Park, N.Y. offices, Clockwise from top right: John Storyk, Founding Partner; Beth Walters, Founding Partner; Nancy Flannery, CFO, senior partner; Josh Morris, COO, senior partner; and Andy Swerdlow, acoustician, partner.

like Electric Lady, with its blend of style, comfort and technology. And it was owned by a rock star.

Still, it was supposed to be a nightclub. According to Eddie Kramer, Hendrix's producer and engineer, Jimi liked to take breaks in the middle of all-night sessions and go out. One of his favorite clubs in late summer 1969 was called Cerebrum, down in SoHo, featuring an all-white interior, curved lines and a multi-colored lighting scheme. For nine months it was the hip place to go; it made the cover of Life magazine; and it was designed by a 22-year-old architect, recently graduated from Princeton, named John Storyk.

Jimi wanted a club. He bought The Generation, the hot blues club in town located at 52 West 8th Street, a club Storyk (a keyboardist and sax player) had frequented since his college days. Jimi had his manager call Storyk, and a couple weeks later he delivered initial plans. Then Eddie Kramer stepped in and, according to legend, said, "Jimi, you spent \$300,000 last year on recording. You don't need a nightclub, you need a studio." And just like that, while working days at an architecture firm and nights trying to make a go as a blues musician, Storyk's first real solo commission was canceled.

"I didn't even know him at the time, but I wanted to strangle Eddie Kramer," Storyk says with a laugh, noting that Kramer was best man at his wedding and is godfather to his oldest daughter, Nadine. "But then they turned to me and said, 'Well, you know, you could just stay on and do the studio.' I said, 'Guys, I've never been in a studio. I don't really know anything about recording studios.' They said, 'That's okay. You can read up on it. You'll figure it out.'"

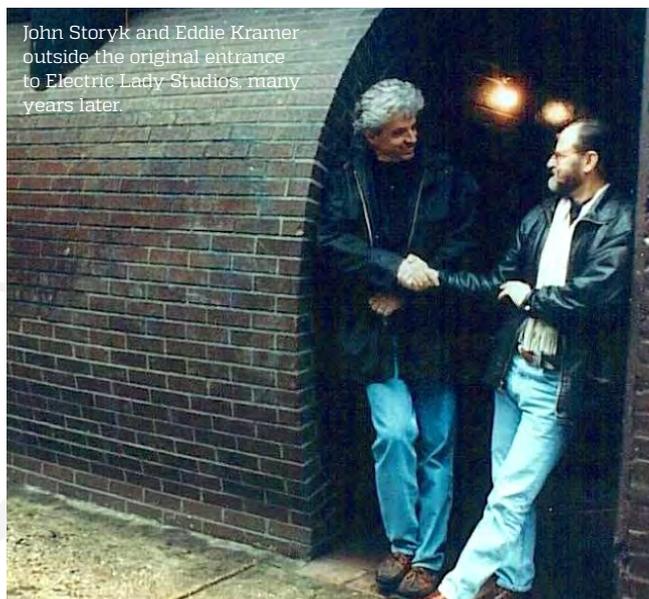
He did figure it out, along the way enlisting the help of Bob Hanson, an

isolation expert, and Phil Ramone, then the owner of A&R Recording, among many others. By the time Electric Lady opened in August 1970, Storyk had three more commissions, one from a blues hero named Leon Russell out of Tulsa, Oklahoma. "I was a blues fan in the middle of building Electric Lady, but I wasn't a giant Jimi Hendrix fan back then. When Leon Russell called, that to me was the moment."

Still, he didn't consider himself a studio designer. In 1971-72, he traveled through Canada with his then wife, eventually ending up in Boulder, Colorado, for a year while still working on studios back in New York. But that all ended, and he moved back to New York, entering studio design full time, including work in conjunction with Tom Hidley on a room at Record Plant for Stevie Wonder, set up by his friends Bob Margouleff and Chris Stone. He built it with audio engineer Bob Skye, who remains a close friend and a part of the company to this day.

He started his long association with Howard Schwartz Recording then, which would grow to 26 rooms. But it wasn't until 1974 and the beginnings of his association with Albert Grossman (who he'd first met in 1969 while designing the original Bearsville Studios) that Storyk finally figured that he could make a career of this studio design thing.

"I had just finished additional work on Bearsville Studios up in Woodstock, and Albert essentially adopted me," Storyk recalls. "He gave me a room in his Manhattan office on 55th Street. And he allowed me to live on his property in Woodstock; I ended up living there for 15 years until he died. There was a little three-unit apartment building and he gave me one of them. I would be in the



John Storyk and Eddie Kramer outside the original entrance to Electric Lady Studios, many years later.



PHOTO: Courtesy of John Storyk

Jungle City Studios, New York City, designed by Storyk for Alicia Keys and Grammy-winning engineer Ann Mincieli.

City for the week, and Woodstock on weekends.

“Albert and I collaborated on the next Bearsville Studios, too,” he continues. “And the theater, Todd Rundgren’s video studio, all the restaurants, a hotel for Albert in Oaxaca, Mexico. I even designed a house for him in Coral Gables. Albert was a huge builder. He became a mentor; a sponsor of mine in a truly Renaissance fashion. And Woodstock became my second home.”

By then Storyk had a small staff in Manhattan, spent his weekends in Woodstock and lived something of a rock-and-roll life. He built lots of studios, started to dabble in teaching, made a bit of money but still didn’t pay much attention to the fact that his career was also a business. He started to bring glass and natural light to his designs. He had embraced CAD. Life was good. New York City in the go-go ’80s.

“All these things were happening in my life,” he says. “And I had no idea that Beth Walters was looming on the horizon.”

ACT TWO: FAMILY AND BUSINESS

To Storyk, meeting his life partner proved the ultimate serendipity. “We were both invited to the same Thanksgiving Day dinner, back in 1985. She was a single mom with a six-month-old boy, I was sort of the date of the daughter of the person who was holding the dinner. But by the end of the evening, I like to say, Beth was my girlfriend, though I wasn’t quite sure I was her boyfriend yet. By the end of January, we were partners in everything.”

Walters, an interior designer with an affinity for fabrics and textiles, can strap on a tool belt with the best of them. She has worked in set design and

fabrication, fashion and theater. Within three months of their meeting, they consolidated apartments, cars, second homes and offices. Over the next five years, Walters oversaw the continual expansion of their upstate home and property in Highland, including a softball diamond, a pond, a swimming pool and the construction of an outbuilding that became the main offices for the new Walters-Storyk Design Group.

“Beth brought color to the company,” Storyk says, matter of factly. “If you look at my body of work, you can see when I switched from mostly wood tones and blacks and grays—everything that Howie Schwartz ever built was black! And then you can all of a sudden see my work changing. And that’s Beth. She became the colorist and I turned more to the geometries, which was always my first love and still is to this day.” Walters also helped establish a more hardcore business sense. “At this time, we had Nancy Flannery in the office doing the books and running operations,” Storyk says. We have two guys in New York and we’re making a little more money. But Beth turns to me one day and says, ‘We’re not organized and we don’t know anything about business. I’m a textile designer. You’re a musician-cum-architect. We barely know how to balance a checkbook.’”

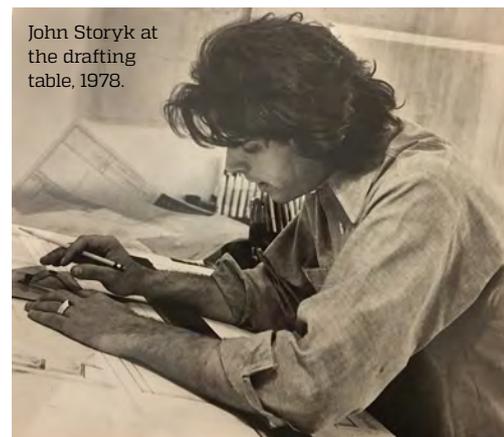
So in the midst of transitioning upstate, Storyk called his longtime friend Chris Stone, co-founder of Record Plant and a shrewd businessman to come up as a consultant and check out their operation for three days, look at their books, and then tell them what they should do.

“First thing he says is that we need an organizational chart,” Storyk recalls. “I said, ‘Chris, we only have five people.’ He said it doesn’t matter. You just need to know who’s doing what. Who’s reporting to what for what tasks. That had never occurred to me. Then he says we have to have an office meeting every week. And to this day, we have an office meeting every Monday at 9:30, every single Monday to this day. And third, he said, we have to abandon cash accounting and go into accrual accounting. Those three simple things changed our business, and I had never heard of the word ‘accrual’ before that meeting.”

The business would change even more dramatically over the next decade and a half, becoming truly global with the addition of offices in four countries and representation in a handful more. None of it was planned, not even the choice of countries. Global expansion, oddly enough, came about through the development of an internship program, which came about because of Storyk’s lifelong love of teaching, beginning at Full Sail back in the late 1980s.

“It started with a question from a student, who asked, ‘Do you ever have anybody work for you?’” Storyk recalls. “It’s as simple as that. We eventually created this three-month program, and now it’s extremely organized and we have applications and tests and everything. We house them; we pay them. Sometimes they become employees.

“One of our first interns was Dirk Noy, a Full Sail student,” he continues. “And within a week of being in the office, it was obvious that he was brilliant. He was already ahead of me as far as sheer acoustic theory. And he could draw.



John Storyk at the drafting table, 1978.

PHOTO: Howard Sherman

I wanted to hire him when the internship is done. He wanted to, but said that he needed to go back to Switzerland. I said, 'Okay, why don't you go back to Switzerland and you can represent us. Open up a little office. We'll front the money. Basel, Switzerland? I'd never even heard of the place.

"For the first few years, he basically tried to get jobs. He got a few. Then he hired a second person. We formed a company after two years, and we now have eight full-time people. And Dirk is now a 10 percent owner of our New York company. So the internships became employees, became representatives, became affiliates, became partners.

"It's the same story with Renato Cipriano from Brazil, who came a semester later. He's brilliant, and he's also a two-time Latin Grammy Award-winning mixing engineer who can draw! Same for Sergio Molho in Argentina, who has since moved to Miami and is now co-COO with Nancy Flannery. Our first project down there was for Fito Paez years ago, and now Sergio is a WSDG owner, too. They've all become family."

John Storyk is a family man. Though his own family wasn't particularly close-knit during his childhood, he holds tremendous respect for his father and mother, learning from them the importance of loyalty and commitment. He speaks with the pride of a father when he rattles off the list of people who have worked with him 20, 30, 40 years.

When he and Walters were approached by a large Midwest company about

five or six years ago and asked if they would consider selling, they took the meetings. After all, retirement was coming. By the end of the process, Storyk couldn't do it. He didn't consider that a legacy. Instead, he and Walters came up with a five-year plan to lend money to Molho, Cipriano, Noy, Flannery, and Morris, allowing them to buy into the company essentially through profits and a great deal of work. Those five years just ended. John and Beth now own 40 percent of the company; the employees own the rest. As Storyk says, "What a way to end the first 50 years and start the next."

Those financial moves are completely in character. John Storyk knows how much his career has meant to the shape of the modern studio, from Electric Lady to Jungle City Studios, and he maintains a bit of New York swagger to this day, but he tends to defer to (and remember) his friends and colleagues, like Albert Grossman, Ham Brosious, Bob Wolsch, Howard Sherman, Howie Schwartz, Marcy Ramos and so many others. At this point in his career, semi-retired but not really, he and his WSDG family have designed more than 3000 studios and production spaces. He's the first to say that he had a lot of help from his extended family.

One of John Storyk's favorite aphorisms is "studio design is the nexus of architecture, acoustics and technology." Now that he's completed the first 50 years of his remarkable career, he might want to tack on an amendment: "...with a dash of serendipity." ■

JACK DOUGLAS & JAY MESSINA JOHN LENNON RINGO STARR GEORGE HARRISON

PAUL McCARTNEY AEROSMITH THE WHO MILES DAVIS BOB DYLAN CHEAP TRICK YOKO ONO PATTI SMITH ALICE COOPER KISS DAVID BOWIE EDDIE PALMIERI SLASH THE KNACK MOUNTAIN STARZ BLUE OYSTER CULT THE BLUES BROTHERS ALABAMA SUPERTRAMP ALLEN GINSBERG MICHAEL MONROE

ZEBRA MAX'S KANSAS CITY MICHAEL SCHENKER GRAHM PARKER FLO & EDDIE BUDDY MILES FRANKIE MILLER NEW YORK DOLLS LABELLE DON McCLEAN CLUTCH LOCAL H MONTROSE THE JAMES GANG RICK DERRINGER PUBLIC ENEMY JOE PERRY PROJECT EL TOPO JOHNNY DEPP STEVE GADD THE TREWS GEORGE MARTIN & many more...



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THE CLASS OF 2020



Every year in June, Mix takes a look at some of the best-designed new recording, mixing, and mastering studios that have opened during the past year. Because many communities are sheltering in place to protect people from the pandemic, some of the usual participants in this annual feature were not able to arrange for their latest projects to be photographed. Here is a collection of wonderful new rooms that were photographed in time, and we hope to showcase many more in upcoming issues.

Dimension 70 Studios, New York City Studio Designer: FM Design



Built in a turn of the century NYC building that has served as a synagogue, a whiskey still and an artist's studio, the Dimension 70 project presented Francis Manzella of FM Design with unique challenges, including structural rehabilitation, the installation of a completely new mezzanine level, and the desire to maintain as much of the personality of the building as possible. FM Design created a distinctive design for owner Fern Souza, integrating the original stained-glass windows and tall ceilings for the structurally floating main studio rooms.

"The side-by-side studio/control room layout is a one-of-a-kind solution for this very rare space," Manzella says. "We used a 'railroad' solution because the building is long and narrow—like railroad tracks. There isn't room for circulation hallways to move past the control room, so you need to pass through the control room to get

into the live room."

Featured equipment in the facility includes a 32-channel API 1608-II console, Griffin G1.5 monitors, Pro Tools HD, an 1891 Steinway Model I upright piano, 1957 original Neumann U47, and a great collection of additional instruments, microphones and outboard gear.

"Our studio was built to accommodate a variety of different project types—full live band tracking, basic overdubs, songwriting and composition, production/beat making, mixing, as well as intimate live events and performances," Souza says. "Of course we were focused on having the acoustics and the tech side be up to par with the best in the industry, but I love that we never had to compromise on the aesthetic and vibe of the space in order to get there—something that I believe is hard to cultivate and was very important to both of us throughout the process. The space mural was originally his idea!"



Photo: James Wilson



Booker T. Washington High School, Dallas, Texas

Studio Designer: RBDG

Russ Berger of RBDG provided architectural and studio design services for this facility at Booker T. Washington High School, an acclaimed arts magnet school in Dallas. Famed alumni of the school include Norah Jones, Erykah Badu, Roy Hargrove, and Edie Brickell. The project included a new control room, studio and classroom where students learn about recording technology, and produce audition submissions and capstone projects. The suite is also used to capture audio and video recordings of student performances from multiple on-campus venues. Equipment—including an SSL AWS 924 console, Pro Tools HDX Core, and Genelec 8341AP monitors—was installed by Jason Levert/Digital Resources.



Photos: Wes Lachot



Pulp Arts, Gainesville, Fla.

Studio Designer: Wes Lachot Design Group

This multiroom facility was designed from the ground up by Wes Lachot Design Group. Both control rooms are built to Reflection Free Zone specifications and have excellent frequency response and even decay times throughout the frequency spectrum. The large tracking room features the recently patented Hexaffusor clouds, developed by Lachot and Dr. Peter D'Antonio.

Acoustical construction was done by Brett Acoustics, and technical wiring was by Canova Audio. Major equipment at Pulp Arts includes Daking and API consoles, ATC monitoring systems, Pro Tools workstations, Lynx Aurora converters, a Steinway grand piano and a wide array of outboard gear.

Casa Blanco, Atlanta, Ga.

Studio Designer: Haverstick Designs

Haverstick Designs was hired to create a new home studio for Crowder, a singer, songwriter and multi-instrumentalist based in Atlanta, Ga. The 400-square-foot control room features a stretch-fabric system by Simplified Acoustics, which handled all of the interior acoustical

treatment installation and lighting. Custom perforated acoustical panels that are backlit with color-changing LEDs help to set the mood in the studio, along with a unique rear wall bass trap that utilizes modern artwork covered with a clear quadratic residue diffuser. Additional design and curation services were provided by Tonic Design Co., including a custom mix desk and acoustical panels built by buildhouse, and

synth wall unit built by Adam Hart.

Head engineer for Reach Records, Jacob "Biz" Morris, coordinated all aspects of the studio design and gear selection and procurement through IsRael Foster at Sweetwater. The studio is equipped with Focal Trion Be speakers, a Toft ATB 24-channel mixer, Tascam ML-16D/ML-32D I/O Dante interfaces and 8P Dyna mic pre's, Universal Audio Apollo x16 interface, and more.



Photos: Mary Caroline Russell

Soultrain Sound Studio, Nashville

Studio Designer: Steven Durr Designs

Soultrain was a unique and challenging project, as it included the redesign of the iconic Scruggs Sound studio in Berry Hill. Owner Johnny Reid kept as much of the original footprint as possible, as he prefers to record with all of the players in the same room, playing off each other. However, the facility has a new modern interior design and custom DMX lighting. The tracking room, iso booth and control room have clear sight lines, while equipment upgrades brought the studio up to the state of the art.

The studio is equipped with an SSL 4000E console fitted with a THD Labs Tangerine computer system and Atomic Power Supplies; PMC MB3 monitors; outboard gear from Coil, Neve, Undertone, Burl and others; a great collection of new and vintage mics; and two EMT plate reverbs: a 250 and a 140 originally owned by the Record Plant, NYC.

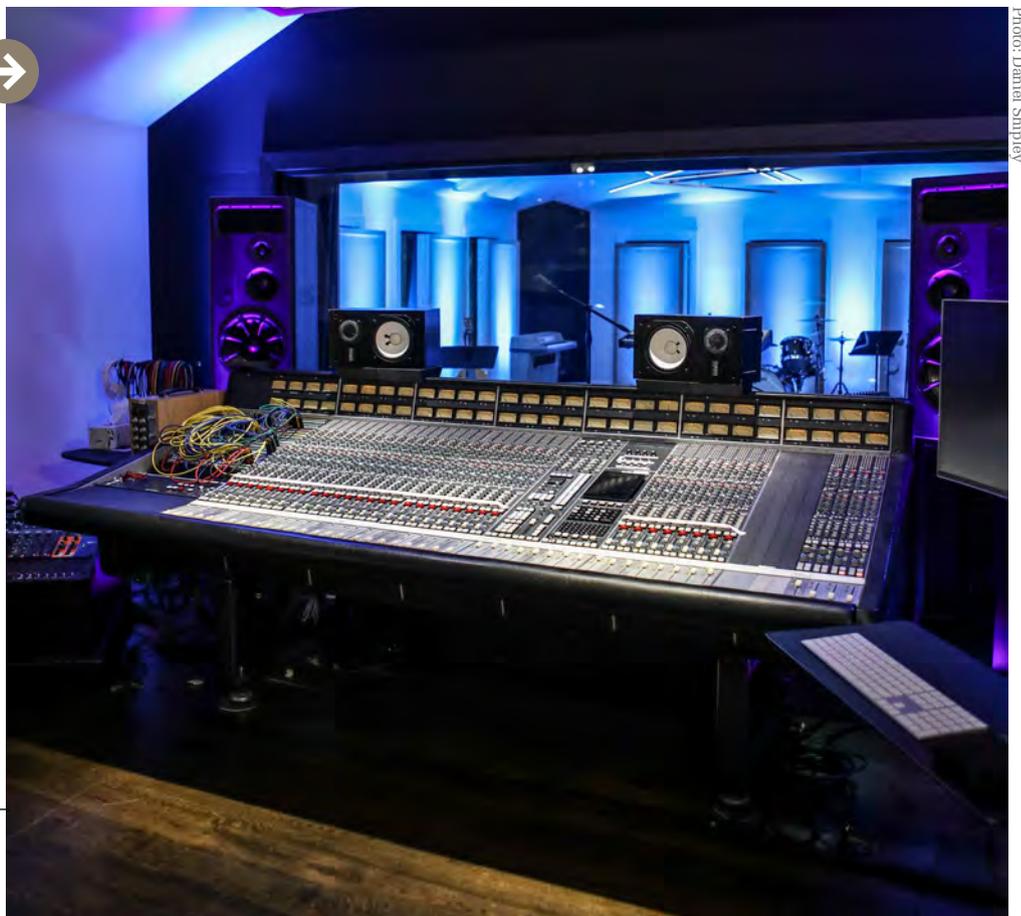


Photo: Daniel Shipley

Photo: Lynn Olson



Sonic Saturation, Dallas/Fort Worth Area

Studio Designer: HdAcoustics

Jeff Hedback of HdAcoustics designed this private-use production/mix studio set within a dedicated 1,100-square-foot outbuilding on owner Lynn Olson's property. The main room and adjoining amp booth are designed to accommodate multiple functions fluidly, from writing and capturing music to mixing and mastering.

Cedar wood-finished slat absorbers and high-end custom front wall acoustics control early and boundary reflections at the mix position and give spectrally balanced energy return in the instrument areas. Olson's studio is equipped with Pro Tools HDX, Dynaudio Core 59 monitors, an Avid S3 control surface, UAD Octo Card, and a large collection of outboard gear and instruments.

Photo: Lou Johnson



O'Connor Mixroom, Olympia, Wash.

Studio Designer: Carl Tatz Design

Carl Tatz out of Nashville designed this PhantomFocus MixRoom studio for John O'Connor. Incorporated in the new facility are Tatz's proprietary PFM UHD-1000 monitors, bi-amped with a 4-channel ATI 4000 amplifier and two PFM ICE Cube-12 Subwoofers. Other equipment includes an Argosy Dual 15K-800 Carl Tatz Edition workstation and Tatz's signature acoustic modules manufactured by Auralex. O'Connor's entire family uses the studio like a sort of Pacific Northwest Von Trapp family, where everyone is a musician and engineer.

V/ES LACHOT DESIGN GROUP

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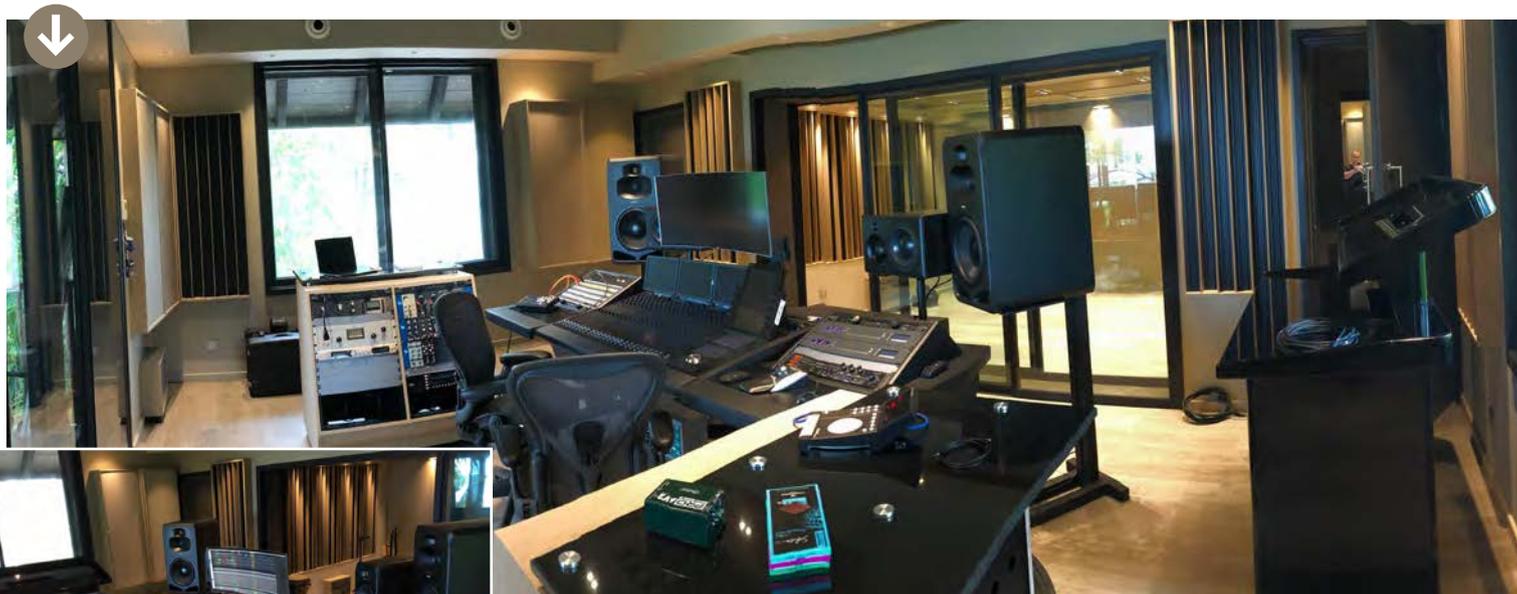
Paradise Island Studio, Nukutepipi, French Polynesia **Studio Designer:** Malvicino Design Group

Part of a remote island chain in French Polynesia, Nukutepipi is home to Cirque du Soleil creator Guy Laliberté's private refuge, including this personal studio. The facility is equipped with an Avid S6 console; Neve, API, SSL, UA, and Shadow Hills outboard gear; ATC monitors, and an Aviom headphone system, to go with an extensive collection of analog synthesizers.

In addition to the studio itself, artists are able

to record from all built areas on the island—including a 50-foot-tall observation tower—which are all connected to the studio control room via Dante. The design team overcame many unique challenges due to the remoteness of the location, and essentially set up the entire studio in the United States to ensure everything that would be needed on the island was accounted for before shipping all materials.

The team consisted of Guy Laliberté and his Technology Advisor, Steve Cloutier; Eric Lynn of Infinite Studio Solutions; Horacio Malvicino and Fabiola Mena of Malvicino Design Group; and Architect Richard Dulude. Equipment was provided by Stephen Bannister of Westlake Pro. After the studio's completion in August 2019, the first artist to write and record in the new space was U2's Bono.

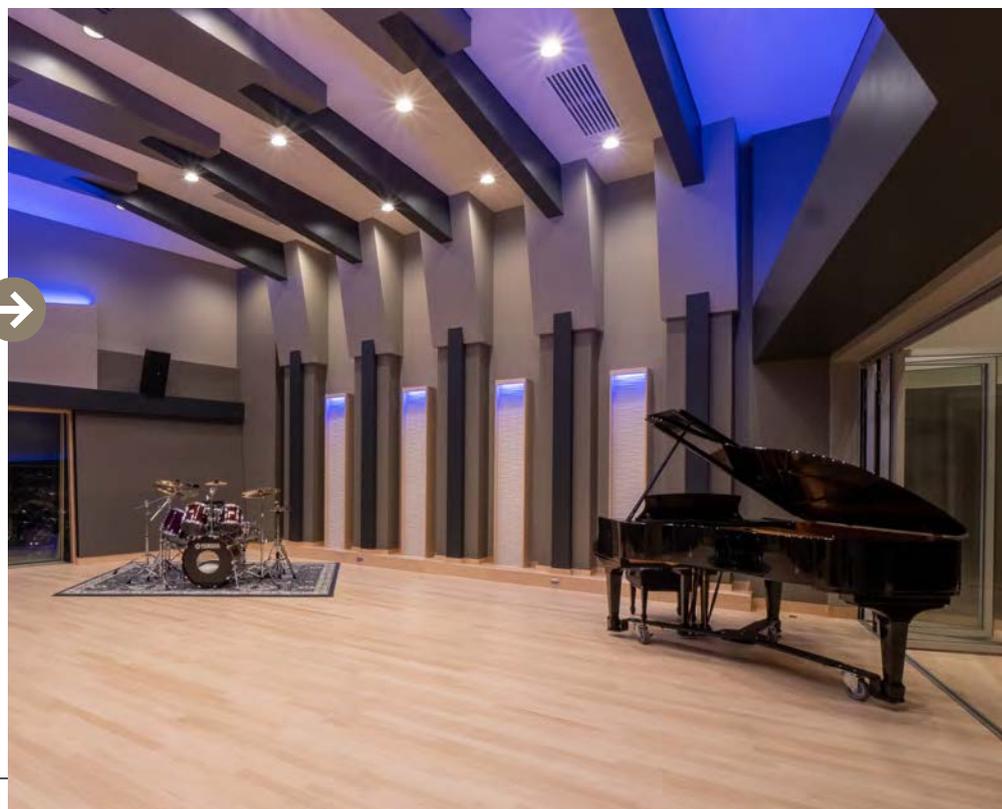


Photos: Horacio Malvicino



Kingland Systems, Clear Lake, Iowa **Studio Designer:** RBDG

Christian film and music producer David Kingland contracted with Russ Berger of RBDG to design this audio and video production facility as an expansion of his existing headquarters. Geared for in-house and outside projects, the recording studio portion of the project includes a control room, live room and two iso booths. Kingland's equipment includes an SSL AWS 948 console, Ocean Way 5.1 monitor system, and an impressive array of instruments, outboard equipment, mics and amps.



Boost Knob Studios, Seoul, South Korea

Studio Designer: Pilchner Schoustal International

Pilchner Schoustal International designed this new mix/mastering studio for Park Gyeong-sun, a notable engineer/producer in the South Korean music scene. The studio is built in a new commercial development, and the suite incorporates a control room, machine room, lounge and client amenities.

Featured equipment includes ATC SCM150 ASL Pro main monitors, an adaptable Sterling modular workstation and a variety of outboard gear suited to his production workflow. The control room features controlled reflection geometry, composite low-frequency damping and diffusive elements.

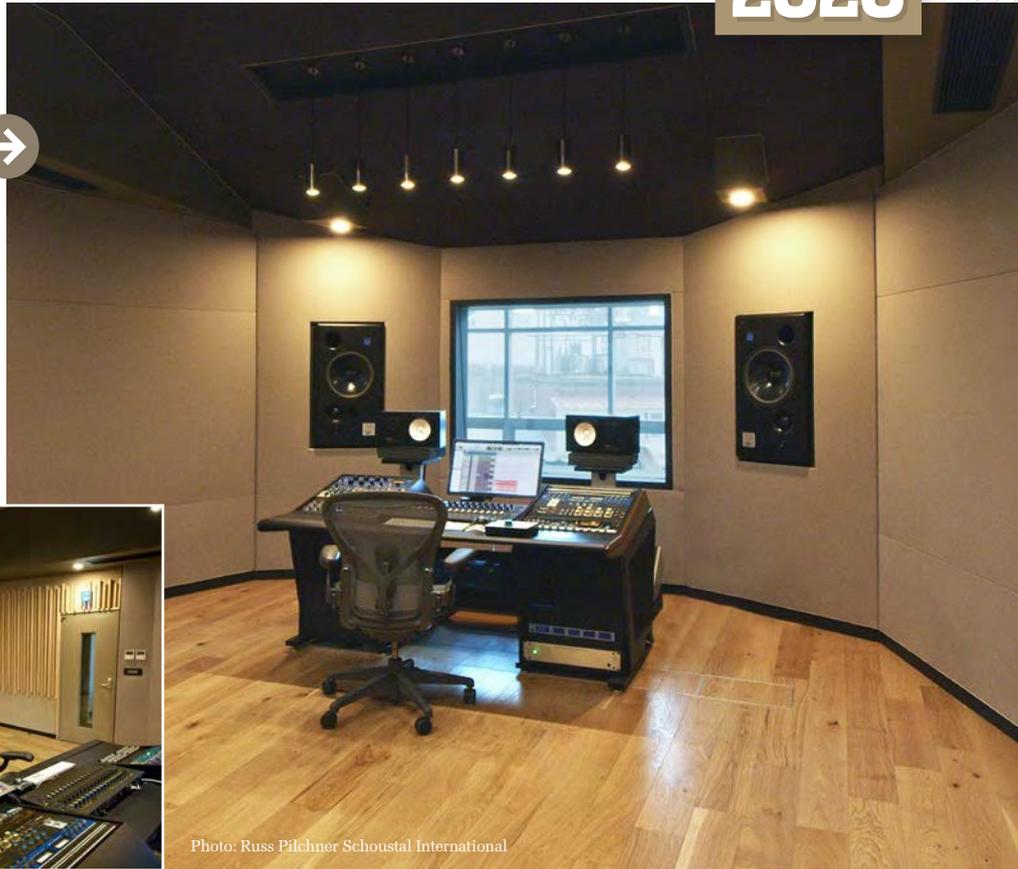


Photo: Russ Pilchner Schoustal International



Photo: KB Studios

KB Studio, Vancouver, Wash.

Studio Designer: Delta H Design

On the banks of the Columbia River, KB Studios is set in an opulent natural environment, a perfect setting to nurture the creative process of making music. Owner Kiel Bishop focuses on mastering and mixing, and the facility is enhanced with ZR Acoustics' Einstein quantum technology dressed in Visual Acoustics. NekroXIII's artistic imagery transforms ultra-thin ZR devices into vibrant, striking works of art. Featured equipment at KB Studios includes Avid Pro Tools HDX, Universal Audio Apollo Twin, ATC SCM45A Pro monitors, Grace Designs M-905 monitor controller, Burl Vancouver summing mixer, and a variety of microphones and instruments.



KID ROCK'S DIXIE RIDGE STUDIOS
Nashville, TN

steven durr designs

CONSULTING - SOUND REINFORCEMENT - ROOM ACOUSTICS - STUDIO DESIGN - NOISE CONTROL



Boiler Room, Chicago, Ill.

Studio Designer: Walters-Storyk Design Group

Studio owner Collin Jordan's Boiler Room facility was designed by the Walters-Storyk Design Group and installed in a 100-year-old, three-story brick building that Jordan owns in Chicago's Wicker Park District, a center for music and nightlife. Joshua Morris, WSDG COO/Project Manager says, "The building's ground floor was a virtual sound lock: 11-foot ceilings, and a solid slab floor made it unnecessary to float the room."

Jordan's equipment includes a Magix Sequoia workstation, Mike Spitz-modified Ampex ATR-102 tape machine, Crane Song converters, and the Dunlavy SC-IVa speakers that Jordan moved over from his previous studio. Jordan reports that the new studio gives his monitors "a remarkably enhanced level of clarity, and resonance; the phase coherency and frequency balance creates a 3-dimensional space where the sound is present in the room in an almost physical sense."



Photo: Nicolas Gumpertchen

Clive Davis Institute of Recorded Music, Tisch School of the Arts at NYU, Brooklyn, New York

Studio Designer: FM Design

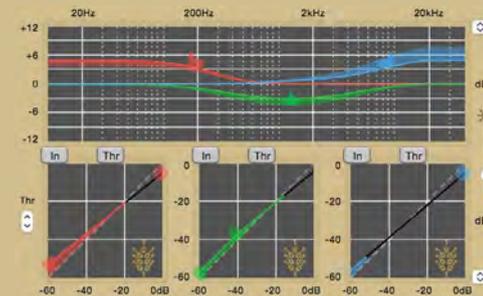
For this complex multi-studio project, New York University contracted with Francis Manzella of FM Design. Manzella accommodated ceiling height in the four main live rooms and one of the immersive control rooms by breaking through the floor slab above to provide double-height spaces; double-height exterior windows let natural light into all of the studios. The dense technical program required heavy sound isolation construction, while accommodating ADA requirements and working within the limitations of the existing building.

Major equipment in the new rooms includes ATC, JBL and Genelec monitors, to go with a PMC immersive system; Pro Tools HD, Logic and Ableton workstations; and consoles from SSL, API and Neve. A legendary Neve 8068, as well as other equipment and studio furniture, were provided through an endowment from the late Adam Yauch's (Beastie Boys) Oscilloscope Studios, made possible by Dechen and Losel Yauch.



Photos: Carline Puyro

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“DynPEQ is an incredible tool. I have found it an amazing problem solver for vocal taming. I am a big fan of this workhorse.”

—Ross Hogarth, multi-award and multi-platinum producer/mixer/engineer

Sol Studios, Fort Smith, Ark.

Studio Designer: Professional Audio Design

Sol Studios was originally constructed in the '80s. Owners Grant Thomas and Anton Rasmussen took over the studio and contracted with Dave Malekpour of Professional Audio Design to gut the existing rooms and redesign them with state-of-the-art acoustics, equipment, and lush interiors. The re-imagined space has two iso booths, a 700-square-foot live tracking room, 400-square-foot control room and a private lounge. Acoustical treatments include Jocavi panels adorned with Indian tapestries and hand-carved wood. The facility is equipped with an API 3208 console, Augspurger Duo15 monitoring, and a Pro Tools HDX system.



Photo: Grant Thomas

Invite Only Studios, New York City

Studio Designer: Malvicino Design Group

Horacio Malvicino and Fabiola Mena of the Malvicino Design Group designed this project for producer/engineer Angelo “Doc” Velasquez and engineer Pat Kelly. Located in the Chelsea neighborhood of New York City, this three-room facility provides 5.1 monitoring in the two large control rooms, as well as a sound stage with cyclorama. Inaki Prades Cardenas, director of installations for MDG, was in charge of the system integration and installation. Equipment includes SSL Duality, SSL AWS 948 Delta, and Slate Raven consoles, Ocean Way HR 3.5 (LCR) and HR 4 surround monitoring, and outboard gear from UA, Bricasti, Lexicon, and API.



Photo: Anna Katherine

Coast Mastering, Berkeley, Calif.

Studio Designers: Michael Romanowski, Bob Hodas, Bob Levy

Longtime mastering engineer Michael Romanowski worked with acoustical consultant Bob Hodas and studio design and build consultant Bob Levy to create the latest incarnation of Romanowski’s Coast Mastering facility. The main room was designed for stereo and immersive mastering, including Dolby ATMOS, accommodating channels up to 9.1.6. Featured equipment includes an SPL DMC mastering console, Focal Scala Utopia EM and Focal Utopia Diablo Evo speakers, Meyer Subwoofer, Bricasti amps and converters, and choice gear that Romanowski has collected over his 25 years of mastering.



Photo: Steve Kuzminski

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The Backyard, Nashville

Studio Designer: Steven Durr Designs

Steven Durr Designs created this studio for musician and former Major League Baseball pitcher Barry Zito, with an eye toward the owner's comfort and expectations, and the idea that a recording studio should be a place you never want to leave. The Backyard studio creates a visual world that harkens back to the 1970s, yet features the latest technology. The architectural design features a stone iso booth and a custom ellipse-inspired cloud for monitoring accuracy. The Backyard is designed for one to two people to work comfortably and feel unpressured in a warm, ergonomically correct working environment.

Zito's equipment includes a Sound Construction workstation, PMC twotwo 8 monitors, UAD and Aphex mic pre's, Roland SVC 350 vocoder, Yamaha C-7 piano, Oberheim OB-XA, and plenty of electronic and acoustic musical instruments.



Photo: Barry Zito



Photo: TC Zhou



Studio 21A, Beijing, China

Studio Designer: Walters-Storyk Design Group

Engineer/producer TC Zhou engaged WSDG to design his new studio complex in Beijing, China. WSDG Art Director Silvia Molho and Director of Design Renato Cipriano developed studio concepts, designs and plans, which included precisely tuned, perforated wooden frequency absorber panels in the front of Zhou's mastering room. The floors, walls and ceilings of all the rooms in the complex are completely floated, and a third layer of filled concrete block was set on the perimeter of Vocal Booth C and the live room to permit independent work in all four rooms simultaneously.

Studio 21A equipment includes a 72-channel vintage Neve 88RS analog console and Augspurger monitoring in Studio A, an SSL Duality Delta board, Pro Tools HD Native system, ReflexionArts RA239 main monitors in Studio B, and much more.

Boogie Live Studio at Irie Rhythms Academy Podcast and Radio Station, Miami, Fla.

Studio Designer: David Frangioni, Frangioni Media

This podcast facility was designed to be controllable from the studio or control room, so that programming can be presented by a team, or by one person who doubles as talent and technician. Collaborating with designer David Frangioni were acoustician Jeff Hedback, wiring/integration specialists Myron Surger and Philip Zanon, and carpenter Kike Moreno. Frangioni's client DJ Irie says, "Frangioni hit it out of the park with this studio. The fact that it sounds great and works every time, around the clock, says it all." Featured equipment includes two Wheatstone consoles, Genelec speakers, Auralex acoustic treatment, and Frangioni's custom-built wall and ceiling acoustic treatments.



Congratulations to the Mix Class of 2020



SOL Studios, Fort Smith, AR



The Penthouse at Times Square, NYC



Greynoise Studios, NYC



High Level Entertainment NJ



MSM Productions, Studio City, CA

Turnkey Studio Design
Acoustic Treatments and Upgrades
Augspurger Monitoring Systems
System Design and Installation

Dave Cobb Settles in to RCA Studio A

The 'Musician's Producer' Upgrades Control Room, Keeps the Vibe

By Frank Wells



PHOTO: DAVID MCCLISTER

these guidelines. You have to do the drums, then you do the bass, then you edit those things, then you add everything else later—the vocals, then background vocals. By the time you get to the vocal, you're bored as hell of the song. The singer's not excited. The band didn't play to them, so there's no connection between the singer and the track.

"I just found it so much easier to have everyone play together, and you have the singer sing along so if the band gets loud, the singer gets loud," he continues. "If the singer gets quiet, the band gets quiet; there's so much dynamic and emotion in tracking together. It's nice to hear a finished record as you're tracking it. Artists get excited when they hear it back and it already sounds like an album. Once I figured out you can do that, I never went back the other way, because I just found it so much easier and quicker."

Cobb relocated to Nashville in 2011, where his recording philosophy matched the legacy production style. Warm-natured with a quiet confidence under a veneer of self-effacing humor, Cobb is a musician's producer, embodying a participatory production style that would feel familiar and comfortable to the musical ghosts in RCA Studio A.

In early traditional Nashville sessions, the musicians were recorded on no more than three tracks and had to mix themselves and play and blend into a pocket. "We still go with exactly that philosophy," Cobb reveals. While he "mixes about 60 percent analog," he's "absolutely tracking 100 percent analog. It's so much easier to touch a button than it is to touch a screen."

Cobb produces with a musician-to-musician level of interaction and communication. "Usually, I'm in the room, playing with the artist's guitar or sometimes percussion or whatever. And I don't like to talk about things too much. We'll sit on the couch; they'll play the songs.

On Nashville's Music Square West sits a storied facility, RCA Studio A, founded by Chet Atkins with Owen and Harold Bradley in 1965. RCA built three near-identical gymnasium-sized facilities—in Los Angeles, New York and Nashville—designed purposely to record musicians playing together live, from bands to choirs to string sections to full orchestras. RCA Studio A is the last of those rooms standing.

RCA Studio A played no small role in the development of the Nashville Sound and its walls are steeped in the tones of an incredible number of legendary musicians and productions. Toward the end of a dozen-plus year residency in the studio by musician and producer Ben Folds, the building was poised to be sold by the Atkins and Bradley families, destined to face a wrecking ball

as a victim of the condo boom in Nashville. Saved by angel investors in 2014 and added to the U.S. National Register of Historic Places in 2014, the room has been leased by musician and producer Dave Cobb since 2016. It was featured on the Mix cover in May 2018.

A Georgia boy, Cobb's professional career began in Atlanta, where he worked as a session musician, as a band member of The Tender Idols, and had his first credits as a music producer. When the band folded, he continued his career in Los Angeles. "I really planted my feet in L.A.," says Cobb, adding that there he was taught "better ways to record and make records."

ON PRODUCTION

"When I got into making records," Cobb recalls, "the first thing they told me is, you have all

We'll make some changes, maybe write a theme or something for it. An intro, outro, bridge, something like that, and we move immediately to the instruments and jump on them. And usually, between three takes, you got it. The tape is rolling the whole time, even during the run-through, because that's when you usually get your best vocal performance.

"With technology, we're able to do things like use the vocal from the first pass if we need to, to punch in where it went wrong if the band gets better later," he continues. "But we never miss the emotion of the first pass, we never miss the original intent. That's the way records feel best to me. You may get the arrangement better later, but you can pop in the original take and use the track from when they first figured out that part or chord, or when the singer first hit a particular note—a bit of magic that never happens again."

ANALOG WITH A MODERN TWIST

The heart of the RCA Studio A control room is now a new 32-channel, 24-bus API Legacy AXS. "I had a Helios console at my house studio before I took over Studio A," Cobb says. As he was preparing to move into the facility, where a 1976 vintage API 3232 console was installed in 2010 by Ben Folds, Cobb recalls a client asking him, "You going to buy that console?" When Cobb replied that he was likely going to move in his Helios, the client said, "Oh, you got to buy the console." When queried why, his client said, "Because it has red, white and blue EQs in it, and I want to make sure that stays."

The API won Cobb over, despite a few age-induced quirks. "Obviously, we fell in love with it," says Cobb, calling the 550A EQ sound "incredible." He adds, only partially in jest, "When I got the new Legacy, really, the big selling point was knowing that I could fit the original red, white and blue EQ's in this console. I know that sounds really juvenile, but it enabled us to keep the historical sound of the room intact with the modern, tactile abilities of the Legacy AXS that we didn't have before."

As a producer/engineer, most of Cobb's credits are on the producer side. His level of involvement in the recording depends on the



The massive and mostly untouched live room in the fabled RCA Studio A.

session, but "I do wind up mixing 50 or 60 percent of the projects I do," he says. "I'm mixing more analog since I got this [API Legacy AXS]. It's fun to be able to spread out on a desk again."

Unlike the morphing of some console brands over the years, the API sound has remained constant, with reliance on core circuits—a concept Cobb endorses. The first time he heard that sound was on albums from Led Zeppelin and the Rolling Stones that were mixed on API consoles. It's the sound of "the records I've loved historically and the records I love that are still being made." He says the APIs have a "straight wire sound. Sound comes straight at you. It's what I recorded; all I have to do is rides. It's the sound of the all the music I've loved, with all the conveniences of today."

Those conveniences include DAW Control, motorized-fader automation, an in-line design with the ability to track and just flip faders to mix, an onboard patchbay that works, "shiny faders that move," adequate aux sends and a clean center section, the latter two Legacy AXS features allowing him to "tidy up" his work space by eliminating an outboard monitor controller and headphone mixer that sat atop the vintage desk.

Cobb also cites having the AXS's six dedicated and automated stereo echo returns as, "probably



my favorite thing because I always feel like you're giving up channels for parallels and reverb returns. I'm riding them like crazy all the time, which is something I wouldn't probably wind up doing with a console without automation. I think it allows you to be more creative."

"This is home," Cobb declares of Studio A. "I don't rent it out." For most of his career, he says, he's worked "six days a week, if not seven. So, I don't really have time to let somebody else jump in for any reason.

"It's beyond my wildest dreams to be in a place like this. You walk through those doors you're walking into another world. I get that feeling every time I've walked in there. A day doesn't go by that I don't realize how fortunate I am to be here. I definitely feel all the people that came before me here. I got to work here with Dolly recently. She said, "This is where we cut "I'll Always Love You" and "Jolene." It's just amazing to hear the stories. I feel like it's a place where you probably should wear a tie to work, and probably stop cussing like a sailor." ■

"With technology, we're able to do things like use the vocal from the first pass if we need to, to punch in where it went wrong if the band gets better later. But we never miss the emotion of the first pass, we never miss the original intent."

— Dave Cobb

Tech

Tech Showcase: Acoustic Materials

Acoustic materials have always been key to keeping your studio recordings quiet, but the latest breed of products bring in starry skies, sneeze guards and fully recycled materials. Here is a look at some of the latest entries to this product category.

Acoustic Geometry: Pro Room Pack 6, 8, 10, 12

Now in its second year, the most recent release from Chaska, Minn.-based Acoustic Geometry is the Pro Room Pack Series, featuring the 6, 8, 10 and 12. Known for its research and application of curved diffusers and corner absorbers, the Pro Room Packs are designed to combine phase-coherent diffusion, proven low-frequency mode mitigation and broadband sound absorption. The largest package, the 12, features eight fabric-wrapped wall panels (2x4-feet, 2 inches deep); six fabric-wrapped ceiling clouds (2x4-feet, 1-inch thick); 12 medium Curve Diffusors (21 x 42 x 7 inches); and four CornerSorbors.



AirHush ISAT Systems

AirHush ISAT (Inflatable Sound Attenuation Technology) is a new category of sound control solutions growing out of more than 10 years of extensive research and development. ISAT systems replace the mass used in traditional sound control solutions with air and combine it with modern sound attenuation materials. ISAT systems address complex sound control issues in diverse settings ranging from open-concept offices to schools, museums, exhibit halls and industrial work sites.

Traditional solutions use mass to block or contain sound. As such they are often expensive, invasive to implement and permanent. ISAT systems are lightweight and ship deflated. Lead sheets and other heavy sound attenuating materials are replaced by pressurized air and modern sound attenuation materials. Therefore shipping and implementation costs, as well as the carbon footprint, are significantly less than those of traditional sound control solutions.

Panels are repurposable and can be implemented in permanent, semi-permanent or temporary installations. End-users can redeploy and reuse system elements. AirHush ISAT systems are currently available in select markets and showcased in the San Francisco Bay Area



Auralex DeskMAX

At this year's NAMM Show, Auralex introduced the podcast-friendly DeskMAX, a portable and lightweight nearfield solution comprising two panels and two stands that can be used anywhere that boundary-mounted acoustical treatments aren't feasible or desired. The next step up is Auralex's D36-DST Roominator Kit of 18 DST-II2 and 18 DST-II4 panels, designed to temper the acoustical problems of a room up to roughly 6 x 8 x 8 feet. For larger rooms (up to 100 square feet), the Project 2 Roominator Kit adds LENRD bass traps to a kit of 24 2-inch thick, 2-square-foot Studiofoam Wedges.

ClearSonic's Germ Shields

The panels don't just shield from sound! ClearSonic is doing its part to get businesses safely up and running again. The company has designed a countertop product line called Germ Shield to protect against coughs and sneezes. Comprised of 14 models, Germ Shields are made from durable 1/4-inch thick acrylic; are free-standing and adjustable; are modular and expandable to fit specific needs; and a 100 percent American made. ClearSonic is also introducing free-standing ClearSonic Panels to help employees and customers to socially distant and reduce virus transmission risks.



Primacoustic Broadway Broadband Acoustic Panel

Primacoustic has added to its Paintables acoustic panel line with the Broadway 48- x 48-inch Broadband absorptive wall panel. Primacoustic Paintables is a line of acoustic panels that gives architects and interior/room designers the ability to integrate matched color or printed graphics into the acoustic design spec for a room or project. The Broadway 48 x 48 Broadband acoustic panel is an extra-large sound absorbing wall panel for installation in larger rooms and commercial facilities such as gymnasiums, houses of worship, theatres and auditoriums.

In addition to the standard color options of black, beige or gray fabric, Primacoustic Paintables are covered in Absolute White latex finish for painting or printing on before installing. Any standard latex paint can be used, though with a sheen no glossier than eggshell recommended to help maintain the panel's natural absorption qualities. The acoustic panels can be readily painted at any commercial printer, or alternatively, as a DIY project using a high-volume, low-pressure spray gun and air compressor.



GIK Acoustics VISO Booth

GIK Acoustics has announced the newest addition to its line of acoustic treatment products, the VISO (Vocal ISolation) Booth. Designed



for singers, songwriters, voiceover artists and podcasters looking to improve the quality of their recordings, the VISO booth isolates a vocal microphone from the harsh room reflections that can make voice recordings boxy or thin-sounding.

The L-shaped VISO Booth is constructed from two 16.5 x 11.5 x 1.5 (inches) panels meeting at a 90-degree angle and provides 162 cubic inches of isolation area. The design is said to ensure a large enough absorption area around the microphone to effectively eliminate room tone and other room noise.

The VISO Booth can be set up on a desktop or on any microphone stand with a standard 5/8-inch thread (not included), and a pre-positioned microphone mount eliminates any guesswork regarding mic placement.

The VISO Booth is manufactured using the same isolation material employed in all of GIK's professional treatment products (Knauf Insulation Earthwool Insulation Board with ECOSE Technology), enabling it to remain effective at those pesky low-mid frequencies that might otherwise make vocal recordings sound muddy.

The portable design and light weight (10 pounds) of the VISO Booth enable it to be easily transported and set up by a single person, and it can be used alone or as part of an overall room treatment plan. The VISO Booth is Class A fire rated for safety and has an MSRP of \$89.

Delta H Design New ZR Screen Formats

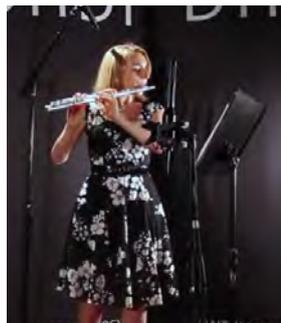
Delta H Design's flexible, portable quantum acoustic device now comes in three easy-to-use options designed for podcasts, production, live P.A., post-production, music mastering and live rooms.

The original "Classic" Screen format suspends vertically with grommets at the top edge, possessing all the legendary traits of ZR: spherical, life-like imaging, micro-dynamic definition and enormous sweet spots.

The "Hollywood" option makes life easier to fix in a frame, with a ring of grommets around every edge. Engineered with extra internal structure to hold the tension of being fastened like a trampoline, it is only 1 inch, ultra-thin, with all the performance of the original Classic format.

"Ninja" format ZR Screens have grommets on a backside spine giving users the freedom to securely hold screens in a frame when completely horizontal, suspended at multiple angles, wrapped around a space for portable ADR, VO or capture of sound effects. Like all three formats, Ninja Screens are 1-inch thick with all the qualities of a ZR Quantum Acoustic Device.

All three formats are available in every ZR Screen family: the original ZR Micro Screen, the high-resolution ZR Hybrid Screen or the next-generation ZR Ultra-Light Hybrid Screen.

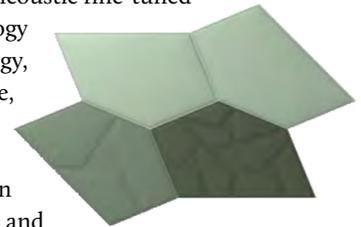


Vicoustic VMT Panels from Recycled Plastic

With VicPET Wool as the new primary raw material, Vicoustic is specifically designed to optimize acoustic performance while not adding glue, fabric or chemical fire retardant. Since Vicoustic started production with this new raw material, the company has manufactured state-of-the-art acoustic panels using more than 250 tons of plastic waste, equivalent to roughly 22 million standard PET bottles being recycled.

Through extensive research and testing, Vicoustic fine-tuned this material into Virtual Material Technology (VMT), using an innovative dyeing technology, which allows simulating concrete, marble, wood and other materials. It is washable, resistant and easy to cut. It also provides a great acoustic solution to implement in any setting, ranging from recording studios and home theaters to workspaces, hospitality, retail, education and even in private homes. VMT can be found across a wide range of products such as Flat Panel VMT, ViClouds VMT, VicWallpaper VMT, VicOffice and Vixagon VMT. Among the use of recycled and recyclable materials, Vicoustic's new line of products takes a holistic approach into account by fully integrating its acoustic performance with other sustainability goals, such as air quality, human safety and health. VicPET Wool meets EuroClass B fire regulations and safety standards.

Focal Naim America (formerly Audio Plus Services) distributes Vicoustic products in the U.S. and Canada. ■



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Tech // **new products*

Apple Updates Logic

Apple has unveiled a major update to Logic Pro X with a professional version of Live Loops, a completely redesigned sampling workflow, and new beat-making tools.

With Live Loops on the Mac, Logic users can now create music in new freeform and nonlinear ways. Loops, samples, and recordings can be organized into a new musical grid, where musicians can spontaneously perform and capture different arrangement ideas into the timeline. From there, tracks can be further refined using all of the professional production features in Logic.

Sampler represents the next generation of the EXS24 plug-in with an all-new design and expanded sound-shaping controls, while maintaining full backwards compatibility. Producers can use Sampler to create and edit multisampled instruments, using drag-and-drop workflows that automate complex production tasks.

Logic Pro X 10.5 also offers a collection of new creative tools

designed to work together to make it fast and fluid to build original beats — an integral part of hip hop and electronic music production.

Logic Remote is a free companion app that allows users to pair an iPhone or iPad with their Mac to control and perform Logic features and instruments using Multi-Touch.

Logic Pro X 10.5 is available as a free update for all existing users, and is available on the Mac App Store for \$199.99 (U.S.) for new customers. Logic Remote 1.4 is also available today as a free download on the App Store.



ADAM Audio T8V Studio Monitor

ADAM Audio has announced the T8V studio monitor, the latest addition to its T-Series line of professional studio monitors. The T8V features an 8-inch woofer paired with amplification. Its power and lower bass extension make it an ideal choice for project and home studios, clients who work in bass-heavy music genres, and those who work in non-electronic genres. The T8V offers a frequency response that reaches down 33 Hz and the ability to project an SPL of 118 dB per pair.

Its U-ART tweeter (Unique Accelerated Ribbon Tweeter) is mated to a waveguide with the same dispersion-control attributes as the HPS waveguide in the S Series. The Class D amplifiers for tweeter and woofer offer ample power for the 8-inch woofer, delivering 20 W and 70 W, respectively, and providing 118 dB max SPL per pair.



API 2500+ Stereo Bus Compressor

With well over 4000 original 2500 units in service today, API has announced the 2500+. While retaining all the functional and sonic characteristics of the original 2500, the 2500+ adds several additional design parameters that have been incorporated into the original unit. The enhanced feature set includes expanded threshold control of +20 dB to -20 dB (from the original +10 dB to -20 dB) and a new 'Blend/Mix' function that offers both cross fader and parallel mix control of the compressed and uncompressed signals.



Hit'n'Mix Infinity Atomic Audio Editor

According to Hit'n'Mix, its Infinity Atomic Audio Editor allows musicians and engineers to unlock audio like never before by working with the actual notes, harmonics and unpitched sounds—no difficult edits on waveforms or frequency spectrums. Infinity 4.5 now offers the ability to rip and export video and MIDI files, import original samples, auto-detect and set BPMs/tempo/scales/keys, and remove background and foreground noise, plus a whole host of other audio processing and workflow improvements





Shure Aonic Wireless Noise Cancelling Headphones and True Wireless Earphones

Shure's first wireless headphones, AONIC 50, feature adjustable noise cancellation to help eliminate distractions for a truly immersive experience with the flip of a switch. Users who want to interact with the world around them can activate Environment Mode to hear immediate surroundings.

Up to 20 hours of battery life on a single charge provides a week of use without needing to recharge. Fingertip controls provide quick access to answer calls, adjust volume, or pause music with a push of a button. AONIC 50 Wireless Headphones offer Bluetooth 5 wireless technology for enhanced stability and a range of up to 30 feet. Featuring a dedicated, high-performance headphone amplifier, AONIC 50 supports popular audio codecs, including Qualcomm aptX, aptX HD, aptX Low Latency audio, Sony LDAC, AAC and SBC.

The AONIC 215 True Wireless Earphones offer eight hours of battery life with three additional full charges from the included hardcover case for a total of up to 32 hours of battery life on the go. Equipped with a premium headphone amplifier, AONIC 215 supports multiple codecs, including Qualcomm aptX, AAC, and SBC and offers Bluetooth 5 wireless technology for enhanced stability and a range of up to 30 feet. AONIC 215 features the same modular design that Shure Sound Isolating Earphones are known for. Listeners can quickly go from wired to wireless with the proper accessories.



Genelec 1235A Smart Active Monitor

Genelec has unveiled the 1235A Smart Active Monitor, which fuses the sound and heritage of the 1035 main monitor with high-performance 96 kHz processing and the ability to adapt to any space through its tight integration with Genelec's GLM calibration software.

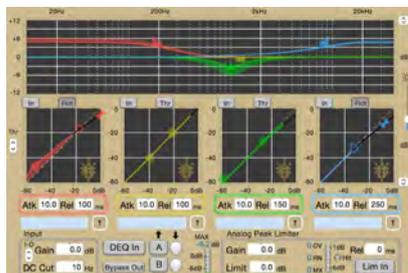
With a short-term SPL of 130 dB and low-frequency extension down to 29 Hz, the 1235A delivers power, but its transparent uncolored performance ensures that the listener can still make accurate, reliable mix decisions even after long sessions, according to Genelec.

The 12.36 cubic foot (350-liter) enclosure of the 1235A matches exactly the dimensions of the 1035, and features dual high-performance 15-inch drivers, dual 5-inch midrange drivers and a low distortion 1-inch throat compression driver. The 1235A's remote-mountable RAM XL electronics module contains power amplification, crossovers and processing, with Class D amplification delivering 2000 W, 800 W and 250 W for the LF, MF and HF drivers, respectively. Input connectivity is provided via both analog and AES/EBU digital formats—along with an AES/EBU digital output—and the updated design of the 1235 also delivers a flatter on-axis frequency response and improved noise performance than was possible with the original 1035.

Wholegrain Digital Systems' Updated DynPEQ Plugins With Native Support

Dynamic parametric equalization processors. It's a free upgrade for owners of versions 1.3 and 1.4, and is being introduced at a steep discount for new buyers. Most notably, DynPEQ is now available in native-only AAX versions. "The native-only products will not employ the HDX DSP in Avid Pro Tools," says Wholegrain founder Duane Wise, "so those who do not have an HDX card can now use DynPEQ plugins at a more competitive price."

Version 1.4.1 also enhances the sidechain search feature introduced in version 1.4, fixes bugs, and adds support for the new 64-bit-only Gatekeeper introduced in macOS 10.14 Mojave.



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Audio Design Desk 1.2

Workstation Software Tailored for Putting Sound to Picture

By Mike Levine

Audio Design Desk (or add.app for short) is a specialized digital audio workstation designed for quickly and accurately adding sound effects and music to picture. It's a powerful new tool that comes with 20,000 sounds, including sound effects, sound-design montages and production music.

Audio Design Desk is available on a tiered subscription basis. Even the lowest Tier provides access to 20,000 sounds, including a large selection of sound effects and production music. As a Tier 1 subscriber (\$14.99/month), you get access to the AAC version of the 20,000-sound library (which comes in several different Sound Packs, along with a "personal license"). add.app grants you the rights to use the sounds for your own, non-commercial projects.

Tier 2 (\$29.99/month) also provides a WAV file version of the library and an "Internet License" for those projects that only appear online. Tier 3 includes everything in the other two Tiers plus worldwide rights to all the sounds and music. Its pricing is negotiable on a project-by-project basis.

Just before this review was finished, the company announced the addition of a free version. It includes a smaller set of 2,500 sounds, and 16 tracks instead of 40, but much of the functionality of the application is the same.

THE GUI

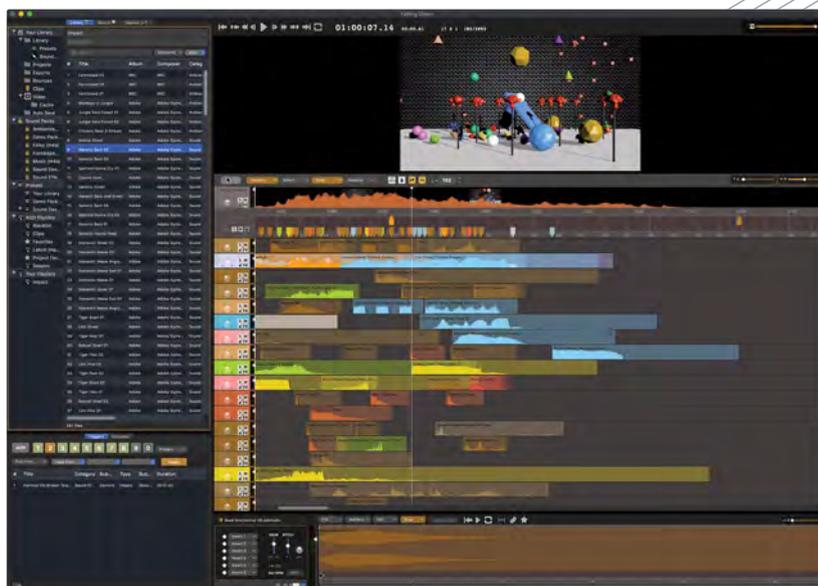
The smartly designed GUI, which features the Timeline and several auxiliary windows, can be resized to give more space depending on how you like to work. In its default state, you see the video displayed in a resizable player above the Timeline area. You can detach the video window if you want, or move it to a second display.

Once you load a video into add.app—either from your hard drive or a URL—the program makes it easy to add sounds or Markers in real time as you watch the video.

You can have up to 100 tracks, each with one or more sounds on it. Each track has a header with controls for volume, pan, mute and solo, lock and FX. The FX button lets you access up to six plugins per track. Audio Design Desk doesn't have a dedicated mixer window; you do all of your mixing from the track headers.

New in version 1.2 is volume automation. You can draw in breakpoint lines on a track-by-track basis to control levels. If the video you've imported and are working on has an audio soundtrack, you can automate that, as well.

Once you have sounds in the Timeline, you can use add.app's



The add.app interface is compact and streamlined, and you have the option to detach the video window.

editing tools for manipulating and moving them, which you can switch with single-key presses. The designers did a great job of implementing key commands for virtually all of the functions in add.app.

KEYS TO SUCCESS

The marketing for add.app talks about how you can "play it like an instrument," and that's not just hype. You can use a variety of keystrokes, called Triggers, to speedily, and in real-time, place sounds with events in the picture. You can also set playback to half or one-third speed to make it easier to place sounds on rapidly moving events in the picture.

Audio Design Desk comes with 14 preset Triggers, each of which represents a different generic sound type. Some examples include D for drone, T for transition, H for hit and R for rise. When you press any of the Trigger keys, add.app automatically adds a corresponding sound from the library at that precise time. You can also set up to 20 additional Custom Triggers, which use the number keys 0-9 and Shift 0-9. Instead of a category, you can assign specific sounds to each trigger.

One of the most powerful features of add.app is its replacement engine. You can select a sound or a group of sounds that are already in the Timeline, hit Command-R, and add.app will replace them all. By opening the pop-up Replace Menu, you can adjust sliders that specify how tight a match to the original sounds the replacements will be.

If you're replacing, say, footsteps with slightly different ones, you'd want to keep the criteria pretty tight. But if realism isn't an issue, setting the criteria more loosely can bring in choices you might never have thought of. If you like the sounds you've placed but want to keep experimenting, you can save the one you finished and try a new one using the handy Versions feature.

MORE POWER

When you use a Trigger, not only does it place sounds in the Timeline, it also places Markers at the top. Audio Design Desk's Marker implementation is quite powerful. You can lock them so that if you change the global tempo, the Markers (and any sounds on the Timeline associated with them) will stay anchored to the point in time where you placed them. Say you were composing and looking for a tempo that works well with the picture, you could drop Markers at the key hit points and lock them. Then you could experiment with different global tempos to see which one feels the best and makes the most hits.

You can also edit any Marker, which opens the Magic Marker window. From here you can refine the type of sound you're looking for, change the keywords and intensity settings, and then add.app provides you with a list of suggested sound replacements that fit your criteria.

You can also tell add.app to Fill All Empty Markers. This is a handy command if you place empty Markers instead of sounds as you're watching the video (which you can do by pressing the G key). Then you can try different sound sets by replacing all or some of the Markers.

THE LIBRARIES

Downloading the sound libraries, through the Sound Pack Manager window, is the first step in any add.app workflow. Audio Design



The Replacement Settings pop-up, near the top, allows you to specify how close to the original sounds you want your replacements to be.

Desk's library is broken up into categorized Sound Packs, including include Sound Effects, Ambience, Music, Foley, Sound Design Stems and Elements.

Most of the Sound Packs feature two main folders: Elements and Stems. Elements are individual sounds—for example, a balloon popping or a salt-shaker shaking. Stems are longer and more involved sound combinations. For example, a key turning in a lock would be an Element, and then a five-second segment with the key rattling as it's inserted in the lock and then the mechanisms inside the lock turning would be a Stem.

In the Music Sound Pack, the files are broken down into Full Mixes, Stems and Elements. add.app splits the Full Mixes into categories such as Action, Comedy, Drama, Horror and so forth. Overall, you get a large selection of well-done, cinematic-style production music of varying lengths.

The Stems in the Music pack consist of descriptive categories like Hits, Drones, Beds and so forth. The Elements are individual instrument hits or loops. I assumed at first that the Stems and Elements would be component parts of the Full Mixes, but they all seem independent of each other.

If you open the Replace tab on the upper-right, you can quickly search music (or effects) by keyword or by feel and intensity.

IMPORT/EXPORT

Another notable feature of add.app's library is that all sounds have a specified sync point. In a sound effect, it's typically the loudest transient; in music, the first note. When you pull sounds into the Timeline using keystrokes, the software automatically places the sync point to correspond to where you hit the key.

Audio Design Desk's sound collection is fairly extensive, particularly in action sounds and sound design. That said, if you're doing pro work, you're likely going to want to import your own libraries, a process that add.app makes relatively easy.

Using the Import Sounds window, you can drag in the folder from an external library and tell add.app whether to copy it, convert it or just read from it. I imported a library of 1,000 sounds, and they came in with titles, so they were

searchable. When I looked at any of them in add.app's Metadata window, the name, patch, duration, sample rate, number of channels and audio format were all listed.

Once you've finished a project, you have several export options, depending on your Tier. For Tier 1, you can bounce out a stereo file or a movie file. For Tiers 2 and 3, you can also bounce the audio as a multichannel WAV file that you can export to another DAW, and which opens separate audio tracks.

Tier 2 and 3 users can export AAF or XML files for use in other applications and Cue Sheets.

POWERFUL AND NEW

Space doesn't allow me to cover everything in add.app, but it's a deep and expertly designed application. I did several test projects with it and was amazed by how quickly I was able to find and place sound effects and music to picture.

My only issues are with the manual and the tutorial videos. The former has improved a lot since version 1.1 (which I originally tested), but it's still not accessible from inside the application. You can only get it on the add.app website.

The website offers a number of tutorial videos that cover specific areas of the program. I found them somewhat frustrating, because they move too fast and don't always clearly break down the steps being demonstrated.

I do have a few feature suggestions for future versions. One is audio scrubbing in the Timeline. Cowan said that it is under consideration for an upcoming release, as is an audible click track.

But overall, I am really excited about add.app. It's a ground-breaking application that significantly speeds up the act of accurately adding sound effects and music to picture. ■

Massenburg DesignWorks MDWEQ6

Four New Filter Types and Improved Spectrum Analyzer Offer Precision With a Musical Feel in an AAX Plug-in

By Barry Rudolph

The Massenburg DesignWorks MDWEQ6-AAX Hi-Res Parametric EQ Plug-in for Pro Tools is a significant upgrade from version 5, with operational and graphical interface enhancements and four new filters. It retains the familiar and efficient operation of the previous version, though version 6 required a laborious redesign and more than a year of testing and refinement in order to include many asked-for additions from end users.

MDWEQ6-AAX operates either Native AAX or AAX-DSP in Pro Tools, running either in 64-bit Windows PC systems or in Macs (32- or 64-bit) running OS X 10.7 or higher, including OS X 15 Catalina. Presets developed in version 5 will run perfectly in 6; however, you can have only one version at a time in the plug-in folder in Pro Tools.

MDWEQ6 requires Pro Tools 10.3.6 or higher for Macs or PT version 11.1 or higher for Win PCs. It uses iLok 2 or 3 authorization. At the time of this review, there were no development plans for Sonnox or UAD versions.

THE ORIGINAL

MDWEQ6 is built on the original MDW filter structure with the constant-shape reciprocal filter curves of the parametric equalizer as originated and conceived by George Massenburg in 1969. The first commercially available hardware parametric EQ was manufactured by International Telecomm, Inc. It was the ITI MEP-130 console module; later the 2U standalone ITI ME-230 model came out. Later, George Massenburg started his own company to produce the GML 8200 five-band stereo parametric equalizer.

The MDWEQ6 is a digital realization of the GML 8200 Series II units. It is significant that all five bands overlap one another, with each band having an operating range of 10 Hz to 41 kHz. All bands are capable of ± 24 dB boost/cut, with bandwidth or stated Q values from 0.1 to 25.6. The MDWEQ6 uses double-precision, 64-bit floating-point math for all sample rates. For 44.1 and 48kHz sessions, it up-samples to either 88.2 or 96 kHz (respectively) for processing.

Up-sampling and double-precision



improves the high-frequency response at near the Nyquist frequency for digital audio, and the plug-in's great dynamic range allows for huge boosts without clipping. For session rates of 88.2, 96, 176.4 or 192 kHz, no up-sampling is required.

High-resolution processing and double-precision requires vast amounts of DSP resources that must be pre-allocated in AAX-DSP coding. At 44.1/48 kHz, you can have up to seven mono instances

per DSP chip, six at 96 kHz and three for 192kHz sessions. Stereo instances count as two mono instances; the number of native instances is only limited by your computer's CPU capabilities. I had no issues running many instances of both AAX-Native and AAX-DSP at the same time.

Like version 5, there are both three-band and five-band variants, with the

PRODUCT SUMMARY

COMPANY: Massenburg Design Works
WEB: <https://massenburgdesignworks.com/>
PRODUCT: MDWEQ6-AAX Plug-in
PRICE: \$299 new; \$99 upgrade after relinquishing Version 5
PROS: Amazingly clear and musical sound.
CONS: None.



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three-band consuming about 30 percent less DSP resources. When replacing an instance of the three-band with the five-band variant, all parameter values transfer.

EXACTING, SUCCINCT OPERATION

The top of the MDWEQ plug-in window has the controls: Input Gain, Polarity (Ø) flip, Snapshot A/B selector, settings copy A to B and B to A, and over on the right is the new “Gear” button to access global Preferences. MDWEQ’s curve updates Pro Tools’ EQ Curve display if you have it selected in the PT Mix window—versions 2018 onward.

By far the most striking change is the larger overall size of the GUI, with an active real-time spectrum analyzer that occupies the entire lower half of the plug-in window. Superimposed over the analyzer are the different color-coded band EQ curves with control “nodes” or handles for clicking and dragging them into shape and position.

You may freely click and drag a node in any direction and see the parameter values change in the center of the band’s control knobs, confirming changes in both frequency and boost/cut values simultaneously. You may also type in specific values for frequency, Q and boost/cut directly into the center of the control knobs.

I like the new ToolTip feature for changing the color of the spectra itself within the analyzer display. The ToolTip button displays a pop-up menu with the color value given in hexadecimal code. But no worries, as you can click on an area in a “rainbow bar” to choose any color you like. I typed in hex FFFFFFFF, or white; it contrasted well with the shaded areas under each of the five band curves.

MEASUREMENT ANALYZER PREFS

Right-clicking anywhere on the analyzer window reveals choices for its vertical amplitude scaling, with ± 6 dB, ± 12 dB or ± 24 dB choices. You would want to see a ± 6 dB scale for a mastering EQ, but perhaps the ± 12 or ± 24 dB scales are better when mixing, sound designing or just crazy EQ carving.

Clicking on the Gear symbol pulls up a large



Global Preferences window with check boxes for enabling your mouse or trackball’s wheel to adjust parameters. There is a choice between two Band Shading behaviors with the default always on, but you can have it on only while adjusting a band—my preference is to see a band’s curve change when overlapped by another band’s curve.

The Preferences window also has three analyzer parameters for adjusting its visual resolution, dynamic range and response speed. Resolution is adjustable for up to 8,192 measurements for a better “look” at the low frequencies, but at the expense of more CPU usage.

Range sets the dynamic range of the measurement utilizing the entire height of the display’s window, with the noise floor at the bottom and peaks at the top. I preferred the

maximum of 120 dB to see the noise floor. Response speed sets the fall time of the display. Set on Slowest, you may inspect spectra for longer durations.

NEW, BIGGER COLLECTION OF FILTERS

Both of the three- and five-band MDWEQ6 equalizer variants are similarly configured. Each band has a separate In/Out button for fast A/B, and each band has a selectable filter-type dropdown menu; they all start with: Bypass, Peak/Dip, Hi shelf, and Lo shelf filter types.

Bands 2, 3, and 4 of the five-band version, and Band 2 in the three-band version can be set to any of nine different filter types, including the same first- and second-order (6 and 12dB/Oct) High-Pass and Low-Pass filters from version 5.

With version 6, both filter bands 1 and 5 for the

I had a poorly recorded drum kit that needed major MDWEQ6 surgery. For drum equalizing, I set the Analyzer Response Speed to slowest so that I could see the ring-out of sustaining drums and cymbals. I found the MDWEQ6 transparent and clean; extreme EQs on kicks and snares and radical tom-tom filtering still sounded natural.

five-band, and bands 1 and 3 in the three-band are identical and can be individually set to one of 13 different filter types. Back in version 5, the first four bands all had the same collection of seven filter types.

Now in Band 1 and 5, besides the previous version's collection of filters that included traditional first- and second-order filters, it now has third- and fourth-order (18 and 24dB/Oct) High-Pass and Low-Pass filters.

Now all bands also include Lo Shelf Hi-Q and Hi Shelf Hi-Q filters. These shelving filters offer response curves that are reminiscent of vintage tube passive equalizers when simultaneously boosting and cutting the same frequency.

When right-clicking on any EQ band, a pop-up window includes copy/paste functionality where any band's settings can be copied/pasted to any other band. There are also four choices for setting the Q for the IsoPeak feature (introduced in version 5) for that particular band. The default Q is 8 but changeable to 4, 12 or 24.

IN THE STUDIO

I tested both the three- and five-band MDWEQ6-AAX version 6.02r10 equalizers in Pro Tools 2020.3.0 Ultimate in a 2010 MacPro 5,1 dual four-core. Most of my sessions are at 48 kHz or 96 kHz, and even with this ten-year old computer, I found good stability and solid operation from the beginning.

Subtractive EQ workflows for finding resonances and problematic frequencies are fast and easy using IsoPeak. When you click on a band number button, IsoPeak solos that band and puts a 12dB boost/peak wherever that band's frequency node is located.

I would drag the node to sweep through frequencies in the general area of the problem or sweep from 10 Hz to 41 kHz and locate other resonances, or just to find frequency centers of interest. I just loved the ability to overlap another band!

I got into the habit of first matching the band's Q with IsoPeak's selected Q before developing a subtractive EQ. When I exited IsoPeak, I was ready to cut or boost more precisely and exactly at the chosen frequency and Q.

The new Hi Shelf Hi-Q and Lo Shelf Hi-Q proved very useful and musical in my mixing work. For a thin bass guitar track that sounded rolled-off and midrange-y, in Band 2 I used the Lo Shelf Hi-Q set to 66 Hz with a Q of 8 and up to -12dB of cut.

The fairly sharp resonant peak at 66 Hz fattened the bass up immensely, with up to a +9dB boost indicated on the analyzer's scale! Then I used a fourth-order highpass filter down the octave at 33Hz in Band 1. To clean up the treble, I added a fourth-order Lo Pass filter in Band 5 at 1.5 kHz. Even with these huge numbers, the MDWEQ6 was very smooth, with the bass louder, clearer and not at all unnatural-sounding!



The new Hi Shelf Hi-Q and Lo Shelf Hi-Q are very useful and musical for mix work. Here, for a thin bass guitar track that sounded very rolled-off and mid-range sounding, in Band 2, the Lo Shelf Hi-Q was set to 66Hz with a Q of 8 and up to -12dB of cut. The fairly sharp resonant peak at 66Hz fattened the bass up immensely with up to a +9dB boost indicated on the analyzer's scale.

DRUMS, VOCALS, EVERYTHING ELSE

I like to start my EQ process using Band 2. I would often need the third- or fourth-order filters in Band 1 in addition to what I already had going on. Starting with Band 2 saves me time.

I had a poorly recorded drum kit that needed major MDWEQ6 surgery. For drum equalizing, I set the Analyzer Response Speed to slowest so that I could see the ring-out of sustaining drums and cymbals. I found the MDWEQ6 transparent and clean; extreme EQs on kicks and snares and radical tom-tom filtering still sounded natural—especially noticeable in loud transients and cymbal crashes that can easily distort equalizers.

For a female dance-pop singer's lead vocal, I was able to carefully dial in a beautiful sound quickly. It is possible to

push midrange frequencies in an elegant way so that the vocal sits better within a big and busy backing track. The equalizer's inherent clarity and flexibility is a big help in achieving this.

As the hardware GML 8200 has garnered a reputation as a mastering EQ, so will the MDWEQ6-AAX. I just finished a legacy project and used the MDWEQ6 to master 10 songs for streaming services. Between using IsoPeak and all five bands, it was amazing to see how much I could help this patchwork of disparate songs become a cohesive set. Considering that I'm not a mastering engineer, using the MDWEQ6-AAX got me through the job successfully.

SO IMPRESSIVE!

The MDWEQ6 makes the process of applying and evaluating equalization more exacting, intuitive and musical. Whether you approach the process of equalization with a strict and surgical mindset to fix problems or as an essential tool in achieving euphonic perfection, the MDWEQ6-AAX will help you do it to the highest possible quality. Awesome! ■

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Live Streaming From Home, Better Audio From Zoom

Mike Levine: Mix Technology Editor, Studio



Live-Streaming Music—A Case Study: With concerts and club dates on indefinite hold due to the coronavirus, musical artists have taken to live-streaming from home. It's relatively easy to do if you have a simple setup and are satisfied with the quality from your smart phone's built-in mic. But if you want multiple inputs and stereo sound, it gets a lot more complicated.

I know this because my daughter-in-law Nandi Rose, who's signed to Anti-Records and performs under the name Half Waif, recently created a live-stream release show for her new album, *The Caretaker*. Rather than a simple, piano-vocal performance for the live stream, Nandi wanted to include many of the electronic elements that are a signature part of her sound. So she decided on something a bit more involved.

She'd sing, play acoustic piano and trigger samples in Ableton Live from her Novation Launchpad. At the same time, Zack Levine (my son, her husband) would play electronic drums and trigger samples on a Roland SPD-SX drum-sampling pad. They opted to simulcast on YouTube and Facebook.

They ended up using seven channels of audio. They miked Nandi's vocals, used two mics on the acoustic piano, took a stereo feed from Nandi's computer running Live, and a stereo feed from the SPD-SX. They connected the mics to a compact Mackie mixer. The mixer's main outputs fed a Universal Apollo Twin audio interface.

One of the critical desktop applications that they used is called Open Broadcaster Software (OBS), which is freeware that allows you to stream from your desktop and point that stream to YouTube or Facebook or a variety of different servers.

In order to stream to more than one platform simultaneously, they had to add another application, called Castr, after OBS in the signal chain. It's a subscription-based application with more powerful streaming features than you get in OBS. Both the audio (from the interface) and the video (plugged in via USB) were sent into OBS running in the laptop, which then sent it to Castr.

Product of the Month: SPL Crescendo Duo. SPL has released the Crescendo Duo, a 2-channel processor that features identical technology and audio specs to its 8-channel sibling, including 120V Rail technology. Each of the Crescendo Duo's channels features a large VU meter, which you can toggle to be 10 dB less sensitive with a front-panel switch. Other per-channel controls include switches for 48V phantom power, polarity reverse, a 3 dB/octave at 120 Hz highpass filter, and a -20 dB pad. You also get an output knob for each channel, which can be switched in and out of the circuit. All the inputs and outputs are on the back panel.



Steve La Cerra: Mix Technology Editor, Live



Zooming High(er)-Quality Audio: Working online from home and trying to route decent-quality audio in real time to my students is proving quite the challenge. I've been meeting with them using either Blackboard Collaborate or Zoom.

The problem with Zoom is that there's no way of changing its default sample rate of 48 kHz—which is fine if your session happens to be at 48 kHz and sucks if it's not. The key to getting Zoom to run at other sample rates is in creating an aggregate audio device for the Mac OS that will enable Pro Tools to route audio to multiple destinations at the same time.

You'll need to ensure that ZoomAudioDevice is installed on your Mac (this is the software audio path into Zoom). You then use Apple's Audio MIDI Setup utility to create an aggregate audio device that includes your interface and ZoomAudioDevice. The aggregate device will be recognized by the Mac OS and Pro Tools.

The caveat here is to make sure that when you create this new aggregate device, you add your audio interface to it first so that it becomes the clock source. Once that's established, you can add ZoomAudioDevice, and the sample rate in Zoom will follow the sample rate for the Pro Tools session—so you won't need to hear a 44.1 kHz session played back at 48 kHz.

In Pro Tools, set the Playback Engine to the aggregate device (not to ZoomAudioDevice), then default the I/O settings while making note of the last available output. This is the output that will feed audio to Zoom.

Normally, your Pro Tools tracks would be assigned to the outputs called "Out 1-2" (or something similar) so you can hear them through the interface. A trick that some people don't know is that, if you hold down the Control key while clicking on the PT output menu, you can assign a track to multiple outputs simultaneously.

When you have done that successfully, you will notice a small "+" sign next to the PT output label, indicating that the track has been assigned to multiple outputs. You'll be able to hear your outgoing Pro Tools session via headphones or speakers while also feeding the Pro Tools audio to the participants of the meeting.

Product of the Month: GIK Acoustics VISO Booth. The VISO (Vocal ISolation) Booth is designed for anyone looking to improve the quality of their recordings by isolating a vocal microphone from harsh room reflections. The VISO Booth is constructed from two 16.5 x 11.5 x 1.5 (inches) panels meeting at a 90-degree angle and provides 162 cubic inches of isolation area. It can be set up on a desktop or on any mic stand with a standard 5/8-inch thread (not included), and a pre-positioned mic mount eliminates any guesswork regarding mic placement. ■



dCS | LEGENDS

Only A Few Engineers Become Legends



In the world of music production, there's a select group of recording engineers who have strived throughout their careers to deliver the highest quality listening experience possible.

During the course of his extraordinary 40-year career, the late Ed Cherney touched the hearts of musicians and music fans alike.

His great production skills and deep emotional connection to music enabled him to instinctively understand the making of a great song which allowed him to engineer and produce recordings for a variety of artists including Bob Dylan, Queen Latifah, Eric Clapton, Bonnie Raitt and The Rolling Stones. But perhaps Ed's greatest talent was the passionate way he engaged with everyone he met.

Over the years, Ed received numerous honors including four GRAMMY® Awards, beginning with his work on Bonnie Raitt's *Longing In Their Hearts* which won for Best Engineered Album (non-classical). This was followed by GRAMMYs for Buddy Guy's *Blues Singer*; *Summertime: Willie Nelson Sings Gershwin*; and most recently Willie Nelson's *My Way*, which won for Best Traditional Pop Album.

Ed's remarkable life is why dCS is proud to celebrate him posthumously as a recipient of our dCS Legends Award.



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