

5.1 Recording Vibes With ESE

NEW PRODUCTION

The dusk outside the Marin County, Calif., studio The Site was magical, with deep reds, oranges and grays mixed with clouds, mist from billowing coastal overcast drifting in and redwood trees towering outside the tracking room windows. Inside, Glen Moore, of the legendary acoustic fusion band Oregon, was improvising his own magic on his 300-year-old Klotz string bass. Its rich tonality filled the room, while an impressive complement of precisely placed microphones captured his performance. When I walked into the control room, it sounded like Moore was in the middle of the Neve console, and when I walked around the room, the bassist's position hadn't changed. Standing outside the array of Jean-Marie Reynaud speakers were producer/engineers Cookie Marenco and Jean-Claude Reynaud. After listening for a few minutes, Marenco exclaimed, "No bad seats!" She was right.

What I listened to were the fruits of almost two years of work, in which Marenco and Reynaud pursued a surround production approach that would bring a sound to live performance-oriented recordings that is intimate and expansive. They call this trademarked technique ESE, or Extended Sound Environment.

Marenco is no stranger to audiophile-level production and engineering, having worked with some of the music world's most creative talents and consulted for a number of innovative manufacturers. She also worked in A&R at Windham Hill, where five albums she produced earned Grammy nominations. Her production credits include *Winter's Solstice Vol. 2* (which went Gold), *Ladysmith Black Mambazo*, Paul McCandless (of the band Oregon), *Turtle Island String Quartet*, Tony Furtado and Alex Di Grassi. As an engineer, she has recorded many artists, including Mary Chapin Carpenter, Praxis, the Charlie Haden's Quartet West and Max Roach.

The odyssey that led Marenco's sessions at The Site began a few years ago, after she became frustrated by the record industry's puzzling acceptance of MP3 audio and overly compressed recordings. She took a three-month break to figure out what would make her happy, and if she even wanted to go back into the studio. "I knew that I had to go back in with a partner," says Marenco. "I needed somebody who would motivate me to love music and sound again."

A trip to attend a wedding in France changed things for her. There, Marenco spotted some Schoeps microphones used during the reception and was curious about who would use such fine mics for such an application. That's when Marenco encountered Reynaud. "I had learned a very classical kind of recording from great old-school engineers in France, and it seemed that everything I had learned was being thrown away by digital sound," says Reynaud (whose father manufactures the audiophile JM Reynaud speakers in France).

Marenco immediately realized that she and Reynaud shared many of the same feelings about audio. A few weeks later, the two began checking out surround audio setups at



PHOTO: RICK CLARK

Pictured: (top, L-R): Glen Moore, Garrett Brennan, Felipe Neira, Rick Clark; (middle, L-R): Allison Black, Samantha Moore, Dawn Frank, Rob Ickes; (bottom, L-R): Jerry Becker, Tony Furtado, Jean-Claude Reynaud, Cookie Marenco, Kevin Scott

the 2002 AES Convention and, by and large, were somewhat disappointed by what they heard. They started to visualize ways to make multichannel recording more natural and satisfying. They booked time at The Site in December 2002 and began a series of surround recording experiments, aided by the generous help of Sony, Millennia, Pass Labs, JM Reynaud and Stephen Jarvis (who lent them an extensive collection of Didrik deGeer microphones).

After trying many mic and speaker configurations, Sony's Gus Skinnas suggested that the ITU layout [see diagram] might best-suit their goals. Not only did they utilize the ITU setup for the listening environment, they also echoed it exactly with microphone setups in the tracking space and in 19x13x17 live chamber. Additional close-miking was applied for the musicians. The session proved to be enlightening, and the team reconvened at The Site in December 2003.

"The ESE technique uses a combination of mic placement in the tracking room that is an ITU configuration in front of the musicians, in addition to close mic positions for a more 'direct' sound from the instrument. We find the combination of close and room-miking more pleasing than using one and not the other, as well as providing an alternative to surround listening," says Marenco. "Surround listening offers only one 'optimum' listening position: in the center of the five channels. Our technique is designed to have a three-dimensional approach to multichannel listening and offers the listener the ability to listen outside the speaker circle and walk 'through' the speakers and in the center.

"The results are dependent on the quality of the microphones, speakers, preamps, speaker cable, recorder and ef-

The ESE Vibe

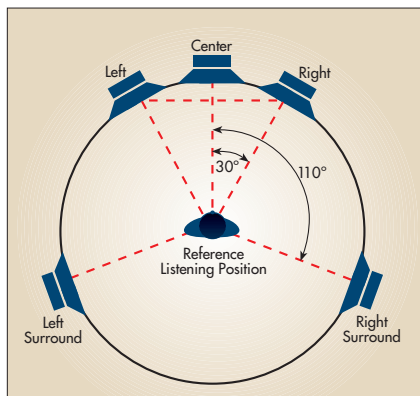
facts used,” Marengo continues. The team recorded to 2-inch analog Studer A-800, with Dolby SR at 15 ips. The 5.1 mixdown was to a Sony Sonoma 1-bit DSD system; stereo mixdown was to the Sonoma system and a half-inch analog Studer A-80 with Dolby SR at 15 ips. This chain was also used as backup to the Sonoma system for 2-track editing.

The entire recording was done on The Site’s Neve 8078 console, which has 72 inputs and is modified for surround monitoring and mixdown, important to the ESE process. The signal was bused out to the Sonoma with Ed Meitner converters, recorded in DSD 1-bit and returned to the console with a 6-channel monitor section to Nelson Pass amps, which were wired with JM Reynaud silver cable to Offrande JM Reynaud speakers (single-wired) and a JM Reynaud Furioso self-powered sub.

“Because of the delicate phase issues created, we used one track for every mic used,” says Marengo. “For our initial experiments, we intentionally kept the ensembles to duos and solo performances, with no option for overdubs. This led to our choice of exceptional musicians capable of great live performances and interactive dynamics. The use of headphones is not an option at this time.

“The choice of 1-bit recording and avoiding the use of PCM digital also led us to *not* use digital effects, instead choosing to use the chamber for additional reverb,” Marengo adds. “We miked the chamber in the ITU configuration with two to four speakers placed inside with individual sends from the board. We used very minimal compression on some of the direct mics on mixdown only. However, we realized the issues [that were] created with compression and only used it sparingly—if at all.”

For the tracking sessions, Marengo and



The ITU configuration, which pits the engineer in the optimum listening position for 5.1 recordings.



Jean-Claude Reynaud and Cookie Marengo in The Site’s control room.

PHOTO: RICK CLARK

Reynaud used five DPA or B&K 4003 mics and the Millennia 8-channel HV-3D mic pre-amp. All of the room mics were set facing up about 45 degrees toward the outside walls. DPA 2 4041s were used to close-mike the guitars and were placed about eight inches from the instrument pointing 45 degrees from the sound hole. Didrik deGeer mics, paired with Neve preamps from the console, were used for vocals and set about 24 inches from the singers. Only one B&K 4041 mic was used on guitars when a vocal was also recorded. For dobro, two B&K 4011s in an X/Y configuration about 24 inches above the instrument were used. For Moore’s acoustic bass, a B&K 4041 was placed on top where the neck meets the body of the bass and a Didrik deGeer mic on bottom in front of the bridge, both mics through Millennia preamps.

Subsequent mixdowns were done at The Site and nearby Skywalker Sound; Skywalker mixdowns were done on their new 72-input Neve 88R surround console. The 80x60x30 scoring stage was used as the reverb chamber, and the ITU was enlarged to accommodate the larger space.

The feedback from the session players was most rewarding. “The musicians said that the recordings really sounded like them: ‘It was not the sound of a guitar. It was the sound of *my* guitar. It wasn’t the sound of a voice. It is the sound of *my* voice,’” says Reynaud.

Marengo enthusiastically agrees: “After four albums producing Tony Furtado, he came in and said, ‘Cookie, you finally got my banjo sound!’ I thought, ‘Was this what I had to do to get your banjo sound: seven mics, a chamber and a 5.1 setup?’” she says with a laugh.

While the team was committed to the concept of no compromise with the equipment used, they were bound by the most

important aspect of the undertaking—the event’s emotional spirit. The striking intimacy and enveloping ambiances of the ESE recordings were most interesting in that they seemed to highlight the chemistry between the players even more so than before.

“You are capturing that moment in time, and that moment in time is about the vibe,” Marengo says. “We tried putting great musicians with each other who didn’t have that friendship from years and years of playing together and it didn’t quite work. We realized that they needed to be friends on a musical level, because our technique was going to enhance that dynamic or lack of dynamic. When it worked, it was an amazing experience to see it come to life.”

Encouraged by the team from Sony, Marengo decided to create Blue Coast Records; its first release will be a compilation of these ESE recordings available in SACD 5.1, SACD 2-track and CD-format hybrid disc in the fall of 2004. Marengo and Reynaud plan to continue experimenting with ESE and other innovative technologies that bring the artist’s performances and vibe into the listener’s home.

“Most people haven’t heard this kind of sound in so long that even when we bring out our 2-track stereo mixes of these sessions, people say, ‘Wow!’ It invites people to listen,” Marengo concludes. “It seems that people have stopped listening and are using music like wallpaper. It’s part of the reason that the music industry is in a shambles. The way that much of the music is recorded now, it lacks emotion. The current fashion is to be over-compressed and to hit everything as loud as possible. It’s horrible and we don’t want to support it any more. We see ESE as an opportunity to bring back the beauty of real sound—the sense of real emotion—and that comes from dynamics and great vibes.”