

# A Sense of Place

How I mixed **MOJO** in 5.1 for Blu-ray Disc. *By Ryan Ulyate*



**A**s an engineer and producer, I've spent my entire career trying to make the world's most amazing-sounding record. It's an ideal I've been striving for ever since I heard the Beatles, Jimi Hendrix, and Pink Floyd on headphones, with all of those fantastic sounds they made swirling through my head. For me, the best musical experience was always an immersive one — something that transported me to another world.

When quad came out in the '70s, I was ready to spend every dime I had to take the plunge. Unfortunately, quad failed because the industry didn't agree on a single format. (Who remembers SQ vs. QS?) When 5.1 surround sound audio came out in the past decade, I was thrilled at the opportunity it presented. Unfortunately, it failed because of another format war. (DVD-Audio vs. SACD, sigh...)

But with Blu-ray (a format war winner!), we finally have something that can provide the home listener with the same audio quality that we pros hear in the studio. Blu-ray's lossless 5.1 formats, DTS-HD Master

Audio and Dolby TrueHD, are far superior to the compressed for-

The first title we did for Blu-ray was Tom Petty & the Heartbreakers' *The Live Anthology*. This release was a selection of stereo and 5.1 mixes of 62 of the best tracks chosen from over 30 years of live performances. Those who heard the Blu-ray mostly had good things to say about it. [Agreed! See "Damn the Two Channels!" December 2009, for my interview with Tom Petty about the Anthology and its 5.1 mix. —M.M.]

And now the band's new album, *Mojo*, will be released in Blu-ray too. [At press time, plans were for *Mojo* 5.1 to be made available concurrently with the album's June 15 release. —M.M. again] Since *Mojo* is a studio album, we had to come up with a new way to think about how to mix in 5.1. The first song I started with was "First Flash of Freedom." [See page 26 for more on the origins of that. —M.M., yet again] An apt title, since we had complete freedom as to how to spread the music around. But the question was: How to do it?

Most of *Mojo* was recorded live at the Clubhouse, the Heartbreakers' rehearsal space and equipment warehouse. I wanted to give the listener a sense of what it was like to be in that room hearing them play. When you're in the room with the band, you're seeing

them about 25 feet in front of you with a wall about 25 feet behind you. The drums, bass, and guitar amps are in front, and Benmont Tench's keyboards are off to the side. You're aware of the sound bouncing off the back wall, and the bass filling the room.

I decided to keep the sound of the Clubhouse in mind for the surround mix. The instruments weren't going to come at you from all over the place. The band, the focus, was to remain in front of you — with the odd moment of surprise coming from the surrounds.

Guitars, drums, and vocals are placed the same way the band sets up. Mike Campbell's guitar is to the left, Tom's guitar is in the center, and Scott Thurston's guitar (and/or harmonica) is to the right. Benmont's keyboards are mostly in the center and equally in the left and right surrounds. This "triangle" puts him in the middle of the



← Stately Ryan's Place, nestled in Topanga, California, where *Mojo* was mixed in both stereo and 5.1 surround sound. "They took their time to set this one up. It's more about feel and playing than trying to make a 3-minute record."

mats on a standard DVD. Stereo is 24-bit, with 256 times more resolution than a 16-bit CD, and it doesn't have to be as "loud" as today's CDs, meaning more dynamic range and less harshness. So now we have a way to get that "ultimate-sounding" record.

RYAN'S PLACE PHOTOS BY JUDITH CROW





5.1 space, just as he sounds in the Clubhouse. And Benmont does so many beautiful and very subtle parts that can be hard to pick out in the stereo mix, but in 5.1, they're fully revealed.

We set up room mikes on the back wall of the Clubhouse, which we added to the mix. This brings a bit of ambience and liveness in the stereo version. In 5.1, they really shine. The room mikes are only in the rear channels, about 5 dB louder than in the stereo mix. This really gives you a sense of place. I love the sound of Steve Ferrone's drums bouncing off the back walls. The delay from the dry drums in front to the room mikes in back is really what puts you in the same space as the band.

We still needed some more stuff in the surrounds to fill them out. Here's where a bit of artistic license comes in. If there was a delay that I added to any instrument or vocal on the stereo mix, I put most of it in the surrounds. On "First Flash of Freedom," there was a trippy vocal delay we all loved. That was sent back to the rear. There's also one dry vocal you hear from the rear only, where Tom doubles the line "on our first flash of freedom." This seemed to really reinforce the hook of the song, and it was an apt metaphor for our mixing process: no rules, just be tasteful! One more element was big in the surrounds on this song, and that was Mike Campbell's Fender Leslie amp. Mike uses two amps on his guitar, usually a vintage Fender Deluxe and Fender Princeton. On this song he also used a Fender Leslie, a cross between the classic rotating organ speaker and a Fender amp. I used two mikes on it, getting left and right perspectives as the speaker ro-



"I had to make the *Mojo* CD a bit louder than I normally would have because the body of the record fits in a certain place, and you can't dial it back. So when the loud bits happen here, they really happen. I'm glad we kept it that way. The CD is pretty exciting, but *Mojo* really translates well on the high-rez versions — and especially the uncompressed vinyl. It will sound like what we heard in the Clubhouse while we were making it."

"The *Mojo* project was fun because we were all able to stretch out so much. There were no rules. Yes, we could have delay. We could be grungy, dark, and bassy — whatever the song needed. Being rooted in that earthy style, the blues, gave us more freedom."

tated. The signals from Mike's two main amps are on the left. The signal from the Fender Leslie is spread across the left and right surround. This gives Mike's guitar a "bigger-than-life" feel, which is appropriate for this song. It's especially noticeable on the break, where the band stops cold and Mike takes a solo.

As I moved to other songs, I found more fun things to do in 5.1. For "Takin' My Time," Tom uses a Fender amp with built-in spring reverb. I found a great spring reverb preset, added that to Tom's guitar, and put it in the surrounds. The result is the world's biggest guitar amp. For "The Trip to Pirate's Cove," I took this super-long vocal

Rec Date	Status	Status	Current Mix	F	G	Notes
2009-04-28	Master	No DBX Used	2010-03-08A	2009-10-12A	2009-10-12A	BGM Ready
2009-05-05	Master	DBX Printed	2010-03-08A	2009-10-12A	2009-10-12A	BGM Ready
2009-09-14	Master	DBX Printed	2010-03-09A	2009-12-19A	2009-12-18A	BGM Ready
2009-11-10	Master	DBX Printed	2010-03-04A	2009-12-18A	2009-12-18A	BGM Ready
2009-11-05	Master	DBX Printed	2010-03-08A	2010-02-11A	2010-02-11A	BGM Ready
2009-05-08	Master	DBX Printed	2010-03-09A	2010-02-18D	2010-02-18A	BGM Ready
2009-01-07	Master	DBX Printed	2010-03-12C	2010-02-18A	2010-02-05B	BGM Ready
2009-11-06	Master	DBX Printed	2010-03-13A	2009-12-18A	2009-12-18A	BGM Ready
2009-05-06	Master	DBX Printed	2010-03-01A	2009-12-18A	2009-12-18A	BGM Ready
2009-09-16	Master	DBX Printed	2010-03-01B	2010-02-11A	2010-02-11A	BGM Ready
2009-09-21	Master	DBX Printed	2010-03-13B	2010-02-10A	2010-02-17B	BGM Ready
2010-01-11	Master	DBX Printed	2010-03-16A	2009-10-12A	2009-10-12A	BGM Ready
2009-04-29	Master	DBX Printed	2010-03-03A	2010-02-03A	2010-02-03A	Bonus Track
2009-09-17	Master	DBX Printed	2010-03-17B	2010-02-17B	2010-02-17B	Bonus Track
2009-09-15	Master	DBX Printed	2010-03-16A	2009-10-12A	2009-10-12A	Check Vendors
2010-01-04	Master	Done	2010-02-03A	2010-02-03A	2010-02-03A	Not Mixed
		In Progress				

↑ The *Mojo* Files. "We front-loaded it. 'Jefferson Jericho Blues' had to go first because it hits the reset button. This is not *Wildflowers* or *Highway Companion*. Get ready for something different, folks."

delay and put it in the back. You can hear the delay in the stereo mix, but in 5.1, it's really pronounced. As Tom finishes a line, it washes over you and repeats in the surrounds, just as he sings a new line from the front. This is the kind of thing that you can't have too loud in a stereo mix but you can bring up in a 5.1 mix. The reason is you simply have a bigger canvas to work on. Sounds don't bump into each other and crowd each other out. And you can have more bass and really feel the music without muddying it.

I could go on and on, but suffice it to say, the 5.1 mix is my favorite way to hear *Mojo*. Set your Blu-ray to 5.1, turn off the screen, and let yourself go back to a time when you could close your eyes and let the music take you on a journey synced with the pictures in your mind.



↑ The backline at Ryan's Place, including ATC surround channels. "When you hear Mike Campbell's guitar make the snare rattle in the back... that's the *real* stuff."

RYAN'S PLACE PHOTOS BY JUDITH CROW