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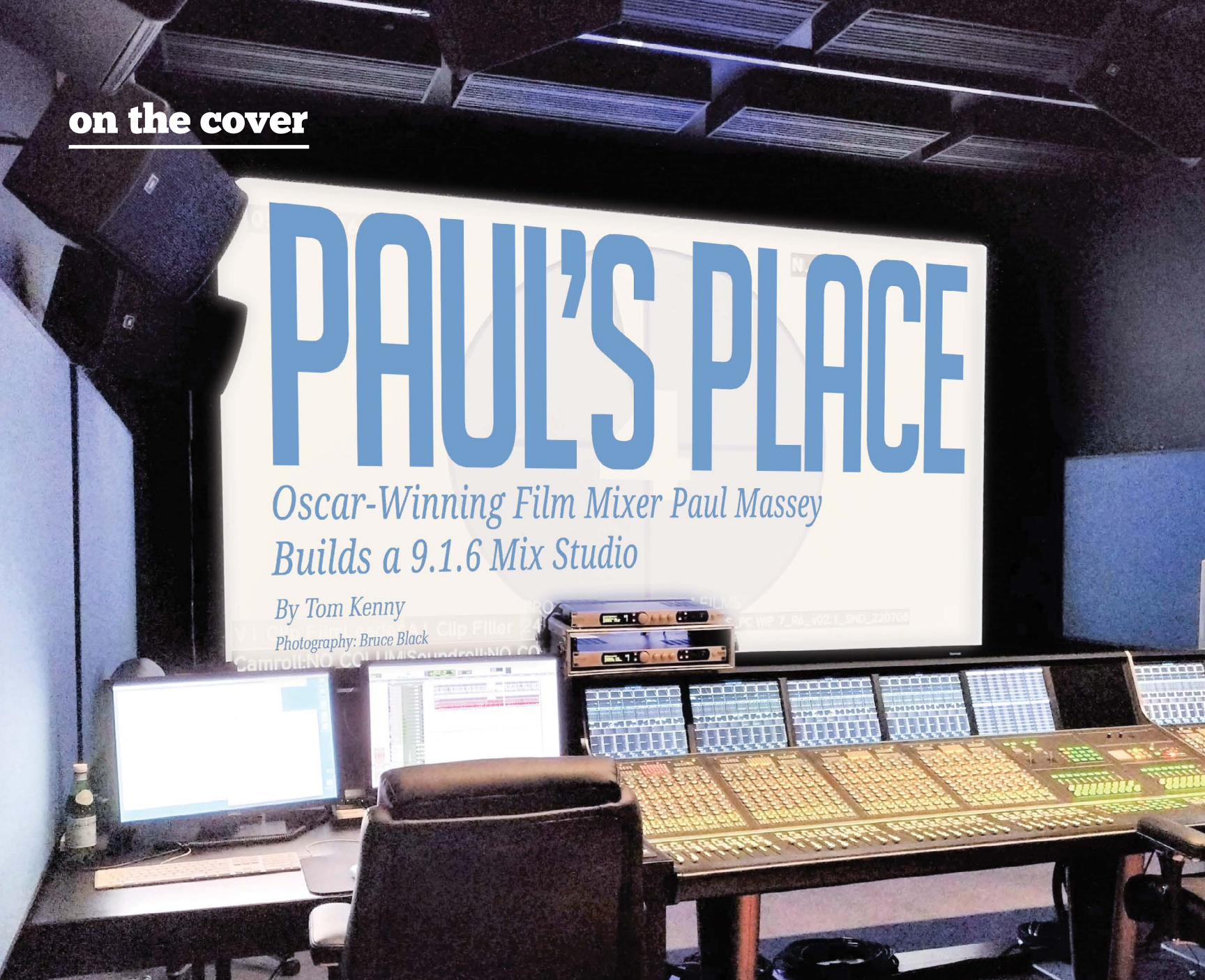
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PAUL'S PLACE

Oscar-Winning Film Mixer Paul Massey
Builds a 9.1.6 Mix Studio

By Tom Kenny

Photography: Bruce Black



It wasn't the daily Los Angeles commute, the ongoing workflow changes in audio post-production, or even the disruption and frustration brought on by the COVID shutdowns that led film mixer Paul Massey to build a 9.1.6 studio in Ventura. It was simply that he wanted to spend more time with his family.

It's the same reason as in 2010, when he built his first personal studio—a high-end 5.1 film mix room in Ojai, about 75 miles north of Los Angeles; he even carried forward much of his signal chain, from console to monitors. There is, however, one rather big difference aside from the switch to immersive playback.

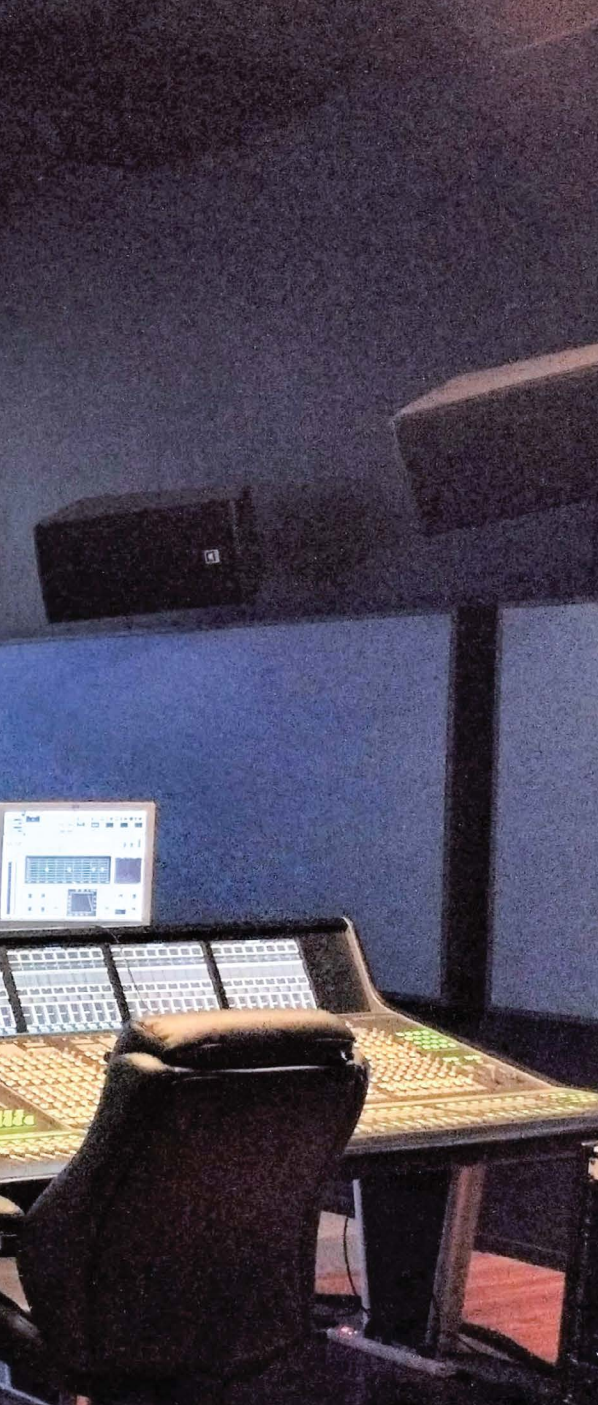
From 2010 to 2020, he would walk out the

back door of his home with a cup of coffee and amble down a path to a free-standing, ground-up studio he had built on the property at the same time the house went up. Now he drives about 20 minutes to a converted warehouse space in Ventura, and then drives home through a beautiful, rolling landscape. He seems quite happy, though when asked about work-life balance, he chuckles softly and admits, "I'm trying. It's baby steps."

"When we moved to Ojai, it was about figuring out how to get pre-dubbing and other small work so that I could spend more time with my family," Massey says. "So we built a professional 5.1 room. But, honestly, when I was at home and

said, 'I'm going over to the studio for an hour or two,' I would be there all day tweaking around. I'm taking away time that I should be spending with the family.

"When we moved a couple of years ago, I looked at building another studio on our home lot," he continues. "Then one day my wife said, 'You know, why don't you look for space that's not at home?' and it turned out to be a really good suggestion. It means that now when I go to work, I'm going there to work and I'm going there for a reason. I'm not going to waste time there and fiddle around all day long. And then when I'm home, I'm home, which is great. I think it's worked out well."



The view from behind the Harrison MPC5 console, with JBL 9320 monitors on the walls and ceiling.



The guts of the Harrison MPC5 console. Avid Pro Tools and every other device fit in three tall racks in the back of an office.

BUILDING A REFERENCE POINT

When we talked in early January, Massey had just returned from a quick four-day hop to London to work on an ongoing mix and was ready to start a project at Warner Bros. in Burbank the following week. As soon as we finished the interview, he was back at his own Harrison MPC5 console, cleaning up a dialog predeb for another project. Life at the top of the film re-recording world involves long, long daily hours over extended chunks of time, often many weeks. Massey estimates that during the past six or seven years, 75 percent of his work has been in Los Angeles, much of it at the John Ford Theater on the Fox lot, with the other 25 percent in London.

While having a personal, professional studio near home serves to balance the Life side of the ledger from the Work side, its true value is in providing Massey with a sense of consistency—an audio reference point all his own for when he carries his predubs to the final mix at Fox or Sony or Twickenham, or when he takes into consideration the multitude of streaming services and home playback environments. It was important to him that the new studio be certified for both Dolby Atmos Cinema and Home out of the same playback system. And it is.

“Translation is going to be about 90 percent of what we all do,” Massey says bluntly. “If a room doesn’t translate to where the audio

is going to ultimately end up for the average listener, then what’s the point? I think it’s of the utmost importance that cinemas stay open and we still make soundtracks for theatrical release. But the simple truth is that an awful lot of the audience now is watching from the streaming platforms, and that has necessitated changes in the way we mix and changes in the room sizes that we are mixing in, so that they more accurately transition and translate into what the audience is watching.”

AN ACOUSTIC FOUNDATION

Massey had known Bruce Black for many years as they both built careers in film sound, with

the former typically at the console and the latter in the machine room. On the side, over many years, Black had become a self-educated acoustician and would occasionally engage in casual conversations with Massey about what he'd been learning and how he had been forming his own theories. When Massey was preparing for the move to Ojai, he recalled those chats and brought Black onboard for the acoustic design. He brought him back in 2020 for the move to Ventura.

"I talked to a bunch of acoustic designers at the time, and some of them made things so complicated and so unnecessary," Massey remembers. "Acoustically, I just thought there's got to be a better way, a simpler way, a less-is-more way. Then I started talking to Bruce again, but as an acoustic designer and about how he overcomes issues. Bruce is definitely less-

is-more, and he came up with some genuine, unique ways of dealing with acoustic issues. He's very, very talented."

Black is also one of those unique audio industry characters. He's a man of science, with a can-do attitude and quirky sense of humor. Now semi-retired, he's freer to further develop his theories and techniques, which are based on direct observation and collected data. These sometimes differ from common practice, but he sticks with what he's learned and developed on his own.

Isolation is paramount to Black ("you want the outside sound to stay outside and the inside sound to stay inside"), and he considers calling it soundproofing misleading. He also balks at bass traps to treat the low end ("It essentially turns all the lows down; instead, just focus on the specific problems and leave everything else alone") in

favor of Helmholtz-style resonators, whether a single hole in a box for the deep lows or multiple perforations to treat the upper lows.

He absolutely believes in sturdy structure ("Screws every four inches instead of building code's spec of up to 16 inches"), and he is chagrined when talking about the preponderance of "flimsy screen walls" that he comes across ("Any energy that gets into them is going to vibrate the wall, essentially making it another speaker that is nowhere near as high fidelity—plus it has a time delay in it"). He leaves the application of EQ to the very end of the process because, he says, there are a lot of acoustic issues that EQ can't fix ("Response depends on where you measure—if you EQ for the mix position, the response of the room changes as you move, and I've never met a mixer who stays in just one place; they're always moving around").

Acoustic Nuts & Bolts

In mid-2022, during the completion of Paul Massey's mix studio, acoustic designer Bruce Black wrote an eight-part blog for [mixonline.com](https://www.mixonline.com) detailing the design and construction process. Here are a few choice excerpts:

The Floating Floor: The project's structural engineer had dictated a structure, built on its own foundation, outside of the mix room itself, to provide support to the inner room. California is earthquake country, after all. This also presented the opportunity to use the gold standard of studio isolation: a floating room-within-a room design. So blue chalk lines were snapped onto the slab, marking the location and width of the new foundation, and the intrepid team fired up the concrete saw and commenced cutting two square slots in the slab, one inside the other, roughly 18 inches apart, and as close

to the unit's walls as possible. These kerfs marked the location of the outer structure's new foundation. The jack hammer then broke up the concrete, and a Bobcat backhoe straddled the trench and dug it out to approximately four feet deep. Then came rebar, properly bonded to the remaining slab, and threaded anchors to hold the outer wall's framing in place. Finally, the trench was filled with concrete, and voila! There was now a concrete slab where once there was only...a concrete slab.

The Walls Go Up: I wasn't there to witness it, but somehow four burly laborers with a 3-ton floor jack, and likely with some hefty pry bars as well, got the two side walls (the longest and therefore the heaviest) in place on the anchor bolts. Add a bunch of anchor plates and hefty nuts, and the walls are in position and locked down. A big job requiring a lot of muscle power.... The wall at the front, or speaker end of

the room, is much easier to install. The electrical panel and sprinkler equipment are in that area, with building codes requiring at least three feet of clear space around them for access. Plenty of room for our fearless tradespeople on their scaffolds to install the outer layers on this wall.

Now the Ceiling: Layering a ceiling is always difficult work, defying gravity with heavy, unwieldy panels. It's not just a bunch of layers of drywall, as we so often see in common studio construction. My design starts with a layer of 3/4-inch plywood, followed by a 1-3/8 inch layer of QuietRock 545. We then put in another layer of 3/4-inch plywood, finishing off with a layer of 5/8-inch drywall, with construction adhesive between each layer. And the secret ingredient? The final layer goes on with drywall screws every 4 inches. This may sound unconventional, it may seem extravagant, but it brings an uncanny rigidity to the walls. ■



The interior frame is in place as the room begins to take shape.



The all important frame for the screen wall is up.



The screen wall is up and the mounts are in place. Nearly there!

PHOTO: Bruce Black

All of the above approaches were employed in one way or another in the construction of Massey's new studio, as Black detailed in an eight-part blog for mixonline.com (see sidebar). The design, treatment and tuning—based on frequency, waterfall and decay graphs—was an iterative and collaborative process throughout the two years of planning, four-month build, and the first few months after its soft opening in July 2022.

"I build to numbers and graphs and data like that because that makes the process repeatable and quantifiable," Black explains. "Once that's done, Paul does his listening test and he says, 'Well, I hear a little something here, I'm getting a little something there,' and we address that. Basically we're tuning the room to his ears. Paul works in many different studios, and he needs to be confident that what's on the recorded medium sounds consistent between the rooms that it's being played in."

BRING YOUR OWN GEAR

As in 2010, Massey worked with Audio Intervisual Design of Los Angeles on system integration, this time for 9.1.6 Dolby Atmos Cinema and 7.1.4

for Dolby Atmos Home from the same playback system. While the update included new cable and wiring, a new Dolby RMU software package, new HDX cards, software updates, and reconfigured monitor control and setup, the bulk of the equipment package was brought over from the Ojai studio, including the JBL and BMS Screen monitors, Meyer Sound subwoofers, outboard racks, Christie projector and a beloved Harrison MPC5 console.

"It's my favorite console in the world; I'd never get rid of it," Massey says. "I do mix on different platforms, and I do realize I'm swimming against the tide at this point because the S6 is everywhere, and that's fine. I have no problem with that. The Harrison is just my personal choice. It's the best sounding console I've ever found."

Massey has certainly earned the right to work the way he wants, including traveling with duplicate MPC5 setups in flight cases—one for when he travels south to L.A., the other which he keeps in London. There's no worksurface, but each does include the complete Toys package of plug-ins, and he's had no problems interacting

with alternate workflows and platforms.

With more than 200 films to his credit, along with 10 Oscar nominations for Best Sound Mixing and a win for *Bohemian Rhapsody*, Massey could be forgiven for kicking back a little and easing into a slower-paced life in Ventura, with family. Yet, in the past year alone, his work has been heard on films as diverse as *The Lost City*, *Morbius*, *Dungeons and Dragons: Honor Among Thieves*, *Moonage Daydream* (on this year's Oscar shortlist) and *Whitney Houston: I Wanna Dance With Somebody*.

In October, he and Gary Rydstrom finished working on the new Indiana Jones film, to be released in June, and in December, he wrapped up Ridley Scott's *Napoleon*, and he's currently working on a musical version of *The Color Purple*. He doubts that he'll ever actually retire.

"I've done three projects out of my new studio, and I'm just really happy with the way it's translating and the overall result—the size of it, the feel of it," he says. "And honestly, it's wonderful to be able to walk into a room like this and know that basically everything is exactly the way you left it. So yes, I'm happy." Then he went back to work. ■

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