Larry Levine The Wall of Sound Deconstructed

He was making hit records long before most of us were born. Together with a legendary producer, he fashioned a distinctive sound that was to dominate the industry for decades and inspire countless musicians and producers (including a young genius by the name of Brian Wilson) to creative excellence in the recording studio.

His name is not nearly as recognizable as Phil Spector's, but Larry Levine was arguably just as responsible for what became known as the Wall of Sound. Born in 1928 in New York, Levine spent most of his life in Los Angeles. Shortly after returning home from service in the Korean War, he took a job at his cousin Stan Ross's fledgling Gold Star studio in Hollywood. "At the time, Stan couldn't afford to hire anyone, which is how I got the job," Levine recalls with a laugh. "Because I wasn't married at the time, I'd hang around the studio in the evening because there were always some show people there, and they were fun to be around. Then when things started getting busy, they asked me to work there. They really couldn't pay me anything, but I was able to do on-the-job training under the GI Bill, so I earned enough to live on... barely."

By the mid-1950s, Levine was an established engineer at Gold Star, recording many of Eddie Cochran's greatest hits, including "Summertime Blues" and "Twenty Flight Rock." A few years later, Spector began working at the studio, initially with Ross, then with Levine. The two of them made for an unlikely partnership—Spector was a fast-talking, eccentric producer barely out of his teens, while the soft-spoken Levine was by then a veteran of the Hollywood scene—but they would work together for more than two decades, crafting a unique sonic signature that no one else has been able to duplicate to this very day. Their hits included The Crystals' "He's A Rebel," "Da Doo Ron Ron," and "Then He Kissed Me," as well as Darlene Love's "Chapel of Love" and The Ronettes' "Be My Baby" and "Walking In The Rain." In the mid-1960s, the pair shaped two of the greatest R&B hits of all time—the Righteous Brothers' "You've Lost That Lovin' Feeling" and "Unchained Melody"—and in 1966 raised the bar further still with Ike and Tina Turner's legendary album *River Deep, Mountain High*, a release that only garnered limited commercial success at the time but is now considered to be one of the greatest recording masterpieces of all time.

Though he worked extensively with Phil Spector, Levine also engineered outside projects, including multiple albums with Herb Alpert & The Tijuana Brass (including the hit "A Taste of Honey," which netted Levine a Grammy for Best Engineered Recording); he also worked closely for a period with Spector disciple Brian Wilson, participating in "Good Vibrations" and the legendary *Pet Sounds* album. As his career wound down in the early 1980s, Levine began the important work of passing the torch on to the next generation of engineers, getting involved in one of the earliest training programs launched at A&M studios. "I was fortunate enough to be able to get into the business without any training, so I always felt I should do all I could to open the door for other people," Levine says.

It's a statement that cogently summarizes the giving attitude of Larry Levine, one of the nicest and warmest gentlemen ever to grace a recording studio. Sadly, Larry passed away on his eightieth birthday, just a few months after giving this extensive interview in which he deconstructs the Wall of Sound for the next generation of engineers. It seems like such a fitting gift from a man whose legacy will stretch far beyond the hits he helped create.

How important do you feel training is in becoming a good engineer?

Well, I think the term "training" is kind of a misnomer in this industry, because every studio is different and every console is different. To me, being an engineer is at least eighty-five percent creative and fifteen percent technical. You really don't need any more technical knowledge than that; it's just a matter of knowing what button to push. Once you learn signal flow, it's really a matter of, what do you hear?

It seems to me that you either have this magic ingredient that allows you to be a good engineer, or you don't; I don't think it's something that can be evolved. When I was involved in that apprenticeship program at A&M, I could usually tell within a week whether someone had that certain something. Frankly, though, I've found that those people who have the makings of being good engineers often don't do as good a job in the mundane aspects like setting up a studio as those who don't have that capability; it's almost as if they weren't cut out for the job.

What do you think that "magic ingredient" is?

It's when somebody's head is so into sound that they instinctively understand what it's all about from the word go. With the people that didn't have that instinct, you could sense that everything you told them was going over their head. I know it's a pretty broad statement, but you could almost tell who was into sound just by talking to them. Then it came down to who had good ears, and who was tuned into the client. Obviously it's important to be able to understand what the producer and artist has to say; so much of this job is about communication, verbal or otherwise. You can tell who the good communicators are, too, because producers want to work with them over and over again.

The job seems to be as much about psychology as technical ability.

Well, I don't think it's a matter of knowingly trying to get people to bend to your will; it's a matter of merging personalities. Stan Ross, the owner of Gold Star, was a great engineer—one of the best—and he had an ability that I wished I had, which was to make every client feel that what he was doing was really good, and that he was a hundred percent behind them. With me, if I felt that what was happening wasn't good, I couldn't hide it. I regretted not having that ability, and I'm sure it cost me some work with certain clients, but at least I was honest. So Stan not only had the ear, but people loved him too. He didn't manipulate anyone, though, which is what the word "psychology" implies to me. I don't think that works, anyway—it certainly wouldn't work with someone like Phil! [*laughs*]

If you were as blunt as you say, how is it you were able to work successfully with Phil Spector for so many years despite the fact that he had a reputation as being difficult to get along with?

I think it was just a meeting of the minds—he knew that he could deal with me on his level, and I knew that he could deal with me on his level. Looking back forty years later, I think of all the times it could have gone the other way, and how fortunate I was to have been with Phil, even through all the drama. I also think about how tenuous it was that I even ended up with him; if I went astray in a couple of places, that would have been it, insofar as his trusting me.

Did you already have a reputation as a hit engineer before you started working with Phil?

I had made a few hit records, but Stan was the big name at Gold Star, and rightly so. I had worked with a songwriter called Wayne Shanklin, who produced and wrote, and one of the hit records I did with him was a song called "Primrose Lane," with Jerry Walls. He also wrote another hit song that Stan recorded—Toni Fisher, singing "The Big Hurt"—which was the first use of phasing on a record... though it wasn't *intentional* phasing. [*laughs*] Stan had made mono and stereo mixes—at that point, we only had two-track and mono anyway—and Wayne liked the mono mix, but he felt that Toni's voice wasn't out quite far enough, so the next day he asked me to make a tape copy and to run the two mixes together in order to double the sound of her voice. I explained to him that that wouldn't work, because the two tape machines wouldn't stay in sync, but he insisted that I try it anyway. So I did—I lined up the two tapes and started the two machines simultaneously... and it stayed together, pretty much, for the first eight bars, and then one

went out of phase with the other. It just happened to be at a point where the strings went up in the air and disappeared and then came back after the null point.

My reaction was, "See, I told you it wouldn't work," but he was falling on the floor, saying, "Wow—can you make that happen in other places?" So I figured out which tape was moving a little bit ahead and I started it slightly later so it would catch up. In the end I made about six edits. It ended up being a big hit record when it was released back in 1959, and people were trying to guess where it was made—a lot of disk jockeys were talking about it on the air, wondering if it was made at an airport with a big jet passing by. So it wasn't something intentional to start with, but, like many innovations, pure luck.

How did you first meet Phil?

The first record I did with him was "He's A Rebel," and the only reason I did that was because [Goldstar owner] Stan [Ross] was on vacation. The truth of the matter is that I was Phil's second choice; he'd already done a bunch of records with Stan by that time, including "To Know Him Is to Love Him," which had been a huge hit. I guess what was instrumental in my becoming Phil's regular engineer was the fact that I was able to mix all the many instruments together into what became the Wall of Sound. In fact, I'm quite sure that had I not put the sound together that he wanted to hear, he would have gone back to Stan.

Phil was actually pretty scary to work with. I wasn't a novice, but I was still generally a bit nervous with *anyone* I worked with, especially during mixing. I could never understand guys who could eat lunch and do a session—any session—because there was no way I could hold any food down if I were going to record or mix something! Maybe that's because my attitude was, if it's not right, it's all my fault.

So to be with someone like Phil particularly was pretty tough for me. On the second record we made [Bob B. Soxx And The Blue Jeans' "Zip-A-Dee-Doo-Dah"], things were starting to get out of hand and I knew that I wasn't going to be able to successfully record

the sounds on tape at the levels he was instructing me to set. It still took me five or six minutes before I could gather the nerve to turn everything off and say, "You know, this is not going to work." That was because I knew he was going to scream at me, and he did—after all, he was a big-shot producer, and I was nothing at the time. [*laughs*]

I guess there was another turning point in Phil's decision to use me regularly, and that occurred a couple of months later. We were in the studio one night, overdubbing background voices on a song. It was around two o'clock in the morning and we had done the first eight bars and were listening back. Of course, with Phil, I could never just lean back in my chair and listen in a relaxed way—he had me working all the time, constantly mixing what was there. We'd probably heard this track a dozen times when all of a sudden he shouted out, "Okay, this is where they come in!" I was so surprised I instinctively reached for the Record button and pushed it—and, of course, there was no Record Safe mode on the Ampex three-track machines we were using in those days. I immediately realized that I had erased something, and Phil knew it too. We had a little folding card table set up at the front of the control room, and he just crawled right under it, sitting there with his knees pulled up to his chin. [*laughs*]

Fortunately, I managed to stop the tape almost immediately, just two beats before a chord change that is never repeated anywhere else in the song, so I was able to fix it by editing in a copy of the same section from later in the song. Phil was sure the edit wouldn't work, but it did. He'd never let me edit before, either, because he'd had some bad experiences before with cutting tape. Before then, whenever we did a track and something was wrong, even if it was near the very end, he insisted that the musicians play the whole thing all over again rather than allow me to cut tape. But because I had made this repair work, from that point on, we would edit tracks if necessary. So it became a question of trust.

You must have thought your job was on the line at that moment.

No, because I knew it wasn't my fault. It was just a reaction, and the worst that was going to happen was that we'd have to go back and re-record the song. I still felt as bad as you

can feel, especially since we had the backing track done and were working on the vocals by that point. But I kind of felt that I could save it—otherwise I never would have even tried to make that edit. I had confidence in my abilities, and I guess I've always been a lucky person too.

Do you have a musical background, or is your approach purely technical?

No, I was mostly just a music fan. I took violin for one semester at college, but my family couldn't afford to buy me one.

So you can't read music? I always had the impression that all the musicians in the Wrecking Crew played from scores.

No, the music was written out as a lead sheet only, usually written by [arranger] Jack Nitzche, and it was only ever viewed as a starting point, not an end point.

Can you deconstruct the Wall of Sound for our readers?

I'll be glad to do that, but I want to begin by saying that I've come to the conclusion that the Wall of Sound only played a small part in Phil's ability to create hits. It was always about the song; without the song, you've got nothing. But the key sonically was that you couldn't really pick out the individual instruments—it was a "wall" that had a texture of its own.

To start with, Phil would always have pretty much the same musicians playing on his sessions—the so-called "Wrecking Crew." He'd begin by having just the guitarists play their parts over and over again; there would be anywhere from three to six guitars, all basically playing the same part. He'd tweak their parts and change things until he felt he had something worthwhile, then he'd add in two pianos, also doubling the same part. If that didn't work all together, he'd go back to the guitars. I always felt they should be paid double scale, because they worked longer and harder than anyone. [*laughs*] The irony

was that Hal Blaine, the drummer, was actually the only one getting double scale, even though he didn't come in until the end.

Once Phil was happy with the parts being played by the guitars and the pianos, the basses would come in next—two or three of them, with at least one acoustic and one electric—followed by the horns and then the percussion. As I said, the drums were always the last thing Phil would add in, and because the studio was so small, their sound would leak into the other microphones, so that's when the real work began, particularly in terms of trying to get some presence on them without losing the sound of the guitars; that's where most of the drum leakage was coming in.

A big part of the Wall of Sound was also the actual air pressure in the room—it was a very small room with a lot of musicians playing all at once, quite loudly, too, so there were all these sound waves bouncing off the walls.

Does that mean that you couldn't create a Wall of Sound in a large room?

I don't know, but I always felt that the sound in any studio was always better when the room was filled with people rather than being half-empty, regardless of whether you could get isolation or not. Also, bear in mind that the echo chambers at Gold Star played a role, although in retrospect it seems to me a little too much credit was given to them as being an integral part of the Wall of Sound. The biggest part of the equation was the room size, and the fact that the musicians were hearing each other play, live, not on headphones—we didn't use them. So it was a true ensemble in every sense of the word. It was just a matter of creating the right blend so that you heard this overall sound and couldn't isolate or identify any one instrument in it.

You know, the one thing we could never get at Gold Star was the Motown drum sound, which Phil loved and listened to all the time. Try as we might, we just couldn't achieve that, even though Hal [Blaine] was one of the best at playing in a controlled way so that the drum sound didn't blare all over the room, yet it was a very strong sound.

Hal was one of those guys who *own* their instruments. It's as if they're not even playing their instruments—they're actually part of their instruments. With musicians of that calibre, all you have to do is put a microphone up anywhere in their vicinity, and they give you everything you need. With some other musicians, you'd have to work hard to try to pull out the sound, and you'd never get quite there.

I only ever used two microphones on Hal: one overhead and one on the kick drum. The kick mic was usually an RCA 77 ribbon, and the overhead mic could be almost anything—it really didn't matter what you used, although I would sometimes put up a Neumann if it wasn't already in use on the percussion instruments.

Were Hal's drums screened off from the rest of the room?

Well, we didn't have any high screens, so he wasn't ever completely screened off. We did eventually build some screens that were waist-high. Again, when you fill a room, you get the damping from all the bodies in there.

Were the piano lids down?

Usually. One of the pianos was an upright, anyway, and Mike Curb would sometimes bring in his electric piano so he could pick up a rental fee. [*laughs*]

Musically, was each part being doubled or tripled exactly?

Generally that's the way the arrangement was written. The guitars and basses were usually doubling each other exactly—but the pianos often didn't play exactly the same notes, though they would play the same rhythms. I once asked Phil why Leon [Russell] was playing lead piano, because I thought that Al DeLoury was so creative. He said, "It's because of how big Leon's hands are; he can reach octaves, and that's really important for playing lead piano."

Brian Wilson was a huge fan of Phil Spector's productions, and you worked with Brian as well. Do you think he was successful in emulating the Wall of Sound?

Brian did idolize Phil, and he often used the same musicians Phil did, but I don't think he was exactly trying to recreate the Wall of Sound in his own sessions. I remember him telling me that he had written "Don't Worry Baby" for Phil to produce, but Phil was too busy at the time, so Brian did it himself. Certainly it would have been a natural for Phil and for the Wall of Sound approach.

How would you contrast your experience working with Brian versus working with Phil?

Well, basically Brian was a nicer person. He didn't have any swagger about him at all; he just wanted to make music. He was actually one of the nicest kids you'd ever want to work with.

Brian was also right up near the top in terms of knowing what he wanted, plus he knew how to communicate, he was willing to listen, and he was willing to adapt if something sounded better than what he had envisioned. Phil was similar in some regards. He would listen, although he wasn't necessarily waiting for people to present him with alternate ideas. But if something didn't happen one way, he'd try to get it going another way, and if it worked better the other way, he'd go with that.

You were one of the many engineers in LA who worked on Brian Wilson's masterpiece "Good Vibrations," weren't you?

Yes, I recorded some of it, but I don't remember precisely which part I did. I do remember that he didn't have a clear idea of what the whole thing was going to sound like; I guess he was waiting to piece it all together.

Both you and Phil had high hopes for "River Deep, Mountain High," which didn't do nearly as well as either of you had wanted or expected.

That's right. I think I was actually a little more disappointed than Phil, because I felt as if I had let him down, or perhaps it was the technology that let him down. With that record, he was trying to go a bit further up that ladder towards perfection. With hindsight, I think the acme was reached with [the Righteous Brothers'] "You've Lost That Lovin' Feeling." We did things there that hadn't been done before, and we just never quite reached that same point with "River Deep, Mountain High," although it was great working with Tina Turner—she was stupendous.

The real disappointment to me was when it didn't even get a Best Bet bullet in Billboard. To take someone with Phil's proven record in making hits and not even give him that was really an insult, and I know it hurt him a lot.

The echo chamber at Gold Star had a very distinctive sound, but wasn't there also something unique about the way the console routed signal to it?

Actually, we had a series of echo chambers at Gold Star. Stan and I had tried building echo chambers of all kinds, and most of them sounded terrible when we were finished. For awhile, the best echo chamber we came up with was located in a bathroom, and we'd actually put the singer in there. One day we had a singer come in and do a demo of a song called "Well of Loneliness." [*laughs*] After that, we didn't use that particular echo chamber much any more.

But before we even had any echo chambers, the way we'd create that effect was to just open the door to the hallway at one end of the studio and have the vocalist—the only one who ever got echo, by the way—stand half in, half out, and then we'd put a microphone down at the end of the hallway to pick up the delay. So, really, our concept of echo was distance—not an enhancement of a voice or an instrument, but just distance from that voice or instrument. To our way of thinking, when you put echo on something, you made it go farther away. Consequently, Dave Gold, the co-owner of the studio, designed our mixing console so that when you raised the echo on a channel, the level was also lowered automatically—it was all one integrated control, which no one else has ever done, to my knowledge. In other words, as you fed more signal to the echo send, you simultaneously sent less level to the output bus. That had a lot to do with why the Gold Star echo sounded as good as it did.

In a way, it's similar to sending echo pre-fader.

No, it's not the same, because in a pre-fade send there's no direct relationship between the amount of signal being sent to the echo and the amount being sent to the output bus. The way we had things set up, it was as if every time you turned up the echo send, the fader was automatically being lowered correspondingly.

Again, it just came from our concept of echo being the opposite of presence, so that as you increased the echo, you decreased the presence, and vice versa. Somehow it worked very nicely for the kinds of records we were making at the time. In essence, we were just playing with depth of field. And I don't know that we would have done the same thing if we had stopped and thought about it; we might have just thought, "Hey, let's just come up with a way of sending signal to the damn echo chamber and not worry about reducing presence at the same time." [*laughs*]

I remember going to another studio with Phil when we were making a record with Ronnie [Spector], and he kept asking the staff engineer there for more echo; every time the poor guy turned it up, Phil kept saying, "No, I want more!" He was getting quite exasperated, and the engineer couldn't satisfy him. That was because he was used to hearing it the way we had things set up at Gold Star—he wanted to not only hear more echo, he wanted to hear less direct signal. In the end, the engineer just turned the echo send all the way up

and Phil turned to me and he said, "What the hell is this guy on?" [*laughs*] That's one of the reasons why Phil would have difficulty with certain engineers.

I guess he just had a certain way of working, and very few engineers except you understood what he wanted.

I guess so. I was his sounding board; he'd say, "What do you think?" and I'd usually say, "I love it." And if I didn't say "I love it," that was usually the end of it, because he generally wasn't willing to take a chance on a sound if I didn't give it that seal of approval.

Other engineers who've worked with Phil Spector have said that he was actually very insecure.

Absolutely. Sometimes, though, he'd go the other way where he'd just display more and more bravado, which would turn everybody off. I never had that problem with him, though. I did send him away once, after we did *A Christmas Gift For You*, because it was just too tiring working with him; I didn't want to work that hard any more. Of course, once I got some rest, I missed making hits with him and we started working together again.

You were present at the birth of stereo. How did you feel about things opening up from a single speaker to having a left-right soundstage to work in?

Well, it was a natural transition, though at first what we were doing was not true stereo instruments were either on one side or the other, with no panning control. But once we got panning controls, it felt very natural. I didn't mix very differently, though, because for a long time after stereo came in there was still no FM radio, so all the radio broadcasts were in mono. So I can't honestly say that stereo opened up a whole new world for me, or anything like that; it was just another advance. The only advance I hated was when we went to quad.

Why was that?

Because it was the tail wagging the dog. It was not an innovation created by creative people—it was an innovation made by manufacturers who wanted to sell equipment. You had to go in and do a new mix, and there was nothing creative about it. Producers didn't want to have anything to do with it, either, because they'd already made their stereo mix and used up all their creative juices doing that.

So it just never felt natural to me. I never wanted to be in the middle of an orchestra—I just wanted to have the orchestra onstage in front of me, but with as much clarity as possible.

What were your thoughts about the advent of multitrack recording?

That was super. We went from two-track to three-track at first, and that was tough because the Ampex machines didn't provide good quality when you were playing back off the record heads. But once we changed over to four-track, the record heads sounded as good as the playback heads, so everything sounded clean even when you were overdubbing, and things got better yet when eight-track came along, and then sixteen and twenty-four. I welcomed those additional tracks because they gave me more opportunity to separate things out and change the balance afterwards if necessary.

Multitrack allowed artists to make a recording that didn't have a finished sound to it they'd simply record things that you'd build on. The problem was that you never knew what the final sound was going to be until you finished mixing the record. So from an engineer's standpoint, mostly it was boring, and boring is frustrating. When we'd do something like a [Burt] Bacharach date, for example, you got to hear the whole thing, all at once, so you knew you were involved in making music.

What about the advent of digital recording?

Well, I have to confess that at first, I didn't like the sound of digital, although I eventually learned how to make it sound more like tape.

What was the secret?

Mostly putting the signal through tube equalizers, which round the sound off nicely—you can actually get pretty good results that way. I was still doing projects with Phil into the eighties, including the Ramones and Leonard Cohen, but we were still going to tape; Gold Star never really got into digital other than automated mixing. It was shortly after digital technology was introduced that I started cutting back, but I never really completely retired until Phil was producing Celine Dion in the mid-90s. He had asked me to work with him but we just kept mixing and remixing the same songs over and over again. Finally, out of frustration, I said to him, "That's it—I'm retired."

Even then, I never *completely* retired. Just a few years ago, Herb Alpert called me and asked me to mix some previously unreleased tracks for a compilation album [*Lost Treasures*]. We had to do that digitally, of course, but I didn't like the sound of Pro Tools, so we did it in RADAR, which I thought sounded much more like tape.

Do you think someone is born with good ears, or is that something that can be learned?

It's only in contemplation that I've come to realize to my own satisfaction that, yes, I do have a genuine affinity for music. Like any art form, music has different colors and textures, and when I think about it I realize that I had to have been at one with the music in order to create some of the records I made. What I mean by that is that I knew instinctively to not hurry through the mixing process. I'd start by just *listening*, and I might listen to a song all the way through eight or ten or a dozen times before even moving a single fader. I was trying to create a picture in my mind of how the instruments were laid out; I'd envision myself actually in a room with all these instruments, not

necessarily the way I would have physically seated the musicians if I'd recorded them in the first place—just a picture. If I could get a picture, it was terrific. That's when I knew the mix was really good.

So it's a matter of being one with the music, and getting the music to what it wants to be, if that makes any sense. One of the reasons I loved working with Phil was that he would leave me alone to mix. If you've got someone looking over your shoulder the whole time you're going through the process, that really can disturb your concentration.

There's a thing called nuance, too, and I really identify that with Herb Alpert. Herb loves to mix, and he thinks things through, and he's obviously got a good ear. When I listen to what he's mixed against what I've mixed, there isn't a great deal of difference in balances, but there is in nuance. That nuance comes when your fingers don't tell your ears what a good job you did—they're divorced from it—so all you're hearing is the music, unadorned. Mind you, it's not easy to get to the point where your hands are not part of the sound you're crafting.

That's what I realized later, in contemplation—that I had those kinds of instincts. That's why I think it's beneficial to spend adequate amounts of time listening before mixing, so you get to the point where you're *with* the music. If you do that, the music will tell you what it wants to be, rather than you forcing it into something that it doesn't want to be. At the end of the day, it's all about serving the music.

Suggested listening:

Albums:

The Ronettes: ... Presenting the Fabulous Ronettes, Philles, 1964

Ike and Tina Turner: River Deep, Mountain High, Philles, 1966

The Beach Boys: Pet Sounds, Capitol, 1966

Herb Alpert & The Tijuana Brass: South of the Border, A&M, 1964; Whipped Cream & Other Delights, A&M, 1965; Going Places, A&M, 1965; Christmas Album, A&M, 1968;

Phil Spector: A Christmas Gift For You, Philles, 1963 (various reissues since then)

Singles:

Eddie Cochran: "Twenty Flight Rock," 1957; "Summertime Blues," 1958

The Crystals: "He's A Rebel," 1962; "Da Doo Ron Ron," 1963; "Then He Kissed Me," 1963

Bob B. Soxx And The Blue Jeans: "Zip-A-Dee-Doo-Dah," 1962

Darlene Love: "Chapel of Love," 1963

The Ronettes: "Be My Baby," 1963; "Walking In The Rain," 1964

The Righteous Brothers: "You've Lost That Lovin' Feeling," 1964; "Unchained Melody," 1965

Suggested pull quotes:

"Being an engineer is at least eighty-five percent creative and fifteen percent technical."

"The Wall of Sound only played a small part in Phil Spector's ability to create hits. It was always about the song; without the song, you've got nothing."

"A big part of the Wall of Sound was the actual air pressure in the room—it was a very small room with a lot of musicians playing all at once, quite loudly, too, so there were all these sound waves bouncing off the walls."

"Our concept of echo was distance—not an enhancement of a voice or an instrument, but just distance from that voice or instrument. To our way of thinking, when you put echo on something, you made it go farther away."

"Nuance comes when your fingers don't tell your ears what a good job you did—they're divorced from it—so all you're hearing is the music, unadorned."