

Bruce Swedien

Some comments from the world-famous veteran engineer right as his latest Michael Jackson album, *HIStory*, hits the streets.

Do you have a systematic working procedure when you mix?

It's never the same twice. But I'm a firm believer in computerized mixing. What I've done in the last few years in my work with Michael, Quincy, and a lot of people when I start a project is store the balance levels of the tracking session in the computer—for emotional reasons, not a technical reason.

The reason is that's the first time I react instinctively to the music and I want that not to be thought out at all—I want it to be purely instinctive. It's amazing as a recording progresses and you begin to improve it, how that so-called improvement can be a problem. I always store that first tracking date. It's very important.

How often might you refer back to it?

Almost always. On Michael's new album, the live sessions that we did in New York with the orchestra, I stored all those things and that's almost verbatim what went on the final mix.

How did you record the orchestra?

I have 14 ASC Tube Traps that I use in a variety of situations. On Michael's new album, I used them recording the two big orchestral pieces (actually there are more than just two, but the two that feature the orchestra). I used all 14 spaced around the studio mainly for dispersion, not for absorption. There was a slight edginess that I heard in the room, and I wanted a very wide open and very smooth, silky string sound.

I went back to a set-up I used recording the Chicago Symphony with a lot of Mahler stuff that I did. It was a pretty large string section; the whole orchestra must have been at least 60 or 70 pieces. So I used my two Neumann M-50s above the conductor and then the first and second violins are set up to his left and right. This is a bit of a departure from a normal orchestra. Some composers specify that set-up;



it seems to fit the music so well with a big string orchestra.

There are two songs on the new album. One is 'Have you seen my childhood' and the other is 'Smile,' the Charlie Chaplin piece of music. They're set up in that manner, a very classical set-up, a straight-ahead session; Michael even sang with the orchestra. Of course we went back and patched up some of the vocal lines, but a lot of what we used was sung live with the orchestra.

And I used the tube traps spaced kind of indiscriminately around the room at different places. The orchestra rehearsed and I walked around and listened for live spots—hot spots—with the string section. I think when you hear these two recordings, anybody reading this would get the idea of what I was looking for. It's a very big, very smooth orchestral sound.

Do you bring the Tube Traps with you when you mix?

I have. Actually in my own studio that I had in California, there was a door that went outside, parallel to the wall to my right, and it produced a sharp reflection. So I put three or four Tube Traps in a little semi-circle in front of the door, and it just knocked it totally out of there. Very dramatic. And sometimes those reflections can be very distracting. They're kind of midrangey.

What about the claims that you can create a room to record in pretty much anywhere?

That's pretty fair to say; I've not used them for that application; what I've used them for is to improve an already good acoustical situation or to mould that acoustical situation to my liking. On Michael's new album, all his vocals are recorded with seven tube traps around him; every vocal sound on there is done in

that manner. It adds a clarity to the vocals that would be hard to get otherwise.

Using the dead end of the traps?

Yeah. Where they really work for me is more for dispersion than anything else.

I visited your studio a couple of years ago and you talked about an unusual stereo miking technique that uses two omnis in X-Y instead of cardioids.

Yes. I'm a really lucky guy in that my career started at the end of the big band era. I also was fortunate that I spent a lot of time in Chicago doing classical music with the Chicago Symphony and various classical techniques. I learned a lot about mic technique that a lot of young people today don't have a chance to experiment with. It was my distinct privilege to learn mic technique with Count Basie and Duke Ellington.

That was the beginning of the interest in stereo and so on, and these bandleaders were absolutely enthralled with the recording process, as was Fritz Reiner, conductor of the Chicago Symphony. So it gave me a chance to experiment and learn a lot about stereo miking that I wouldn't have had otherwise.

But that technique is no trick; it's a pure X-Y system. There are two mics that it works spectacularly well with. One would be the Neumann M-50 and the other would be the M-49. A quick example: from the Bad album, the song 'Man in the Mirror'—the Andre Crouch choir sings that recording. This is something that anybody can listen to. The choir is recorded with two Neumann M-49s, one above the other in omni, with the choir in about a 30-foot diameter circle around the mics. So you adjust the choir in and out to get the acoustic perspective that you want and then sit back and roll the tape and let the room do all the work.

What happens is that the arrival times of the sound at the two capsules is very, very close in time. It's what I guess you would call highly stereo-coherent—the resultant image makes excellent mono broadcast, but it also has a very spacious feel. The only thing you'd have to say is that there's no left-right intensity difference. It's very centered, but it's wide. If you have that CD, just listen to it and it becomes immediately apparent.

That's recorded in Westlake Studio D on Santa Monica Boulevard, an absolutely perfect room for that type of work. The only mixing that's taking place is purely acoustic. I go through my Neve 1085 preamps.

We just had some articles on wiring and interconnections. Do you have a strong religious preference?

Yeah, although there are places where esoteric wire seems to be more dramatic than others. It's very important for me to have it between the output of the desk and the 2-track to eliminate all the wiring in the wall or the studio wiring, that bad reactive trouble. That's where I really hear a difference. When I start a mix, I'll have the technicians totally isolate the output of the desk and then I'll run a Monster Cable snake from the jackfield into the 2-track.

During that visit to your studio, you talked about ending up with a stack of masters in all different formats for the Michael Jackson album you'd just finished. Just about each song was in a different format.

I still do that. Although on the new album, I had a chance to experiment earlier on and figured out what format I would use. I generally use analog for multitrack recording with Dolby SR, but I'll use different formats for mixdown media. Anything from 1/2" to 1/4" analog to 1/4" digital.

qualify as high-tech; I've been in some very high-tech beautiful studios that weren't very inspiring; I've been in some bedroom studios that are just wonderful.

I have a feeling that it kind of depends on the situation. For instance, my friend Rod Temperton (the guy who wrote 'Thriller' and 'Rock With You' and did all the Heatwave stuff), he's got a home studio; it's the weirdest combination of speakers and room parameters that I've ever seen in my life, and it sounds absolutely fabulous.

Is that because of the room or the combination of equipment?

I think it's an accident—just luck because I don't think acoustics in control room design is really a science. There are just a handful of people who know what they're doing with control room and studio design. Not to mention any names, but there's a few people, a handful, that I'm very impressed with what they've done—and others whose stuff is not that impressive. Physical appearance is often very misleading, which is where the snake oil comes in.

And how much of a difference to the final product does the engineer make, in your opinion?

I think what an engineer (like myself, for instance) brings is an aural concept that gets away from reality. Frankly, many engineers today seem to have a highly technical approach to what they do. They seem to feel that hit records are made by the buttons and the knobs, and they're not. Memorable recordings that people want to play over and over again start with purely emotional values. I've never heard anyone leave the record store humming the console!

And on the other side of the coin, of course it would be good for a lot of musical people to learn as much

technical information as they can. That will bring a certain ease of reality, a realization to their musical promise. If you don't have the technical chops to put together a viable listening medium, all the good ideas in the world won't get on tape. You know, there's a happy medium.

I've made hit records in some pretty ratty-ass studios that would not qualify as high-tech; I've been in some very high-tech beautiful studios that weren't very inspiring; I've been in some bedroom studios that are just wonderful.

Why 1/4" analog over 1/2" analog?

It sounds very very different—1/4" is warmer. And I'll very often select a different recording speed to suit the music. The low end is so much fatter at 15 ips. Very dramatic.

What's the difference between what you can do in a "professional" studio and what musicians can do in their own studios?

To be honest with you, I've made hit records in some pretty ratty-ass studios that would not