

WHAT HAVE THEY DONE TO MY ART?

Part 1

As we approach the millenium, I thought that my overview of our industry as I have seen it evolve from the 1950's might help to counteract the negative directions that I have seen taking place in our industry. RANCOR AND RAGE!! What do you mean, negative directions!! With all of the new technology, it has to be better. Well, I don't think so. There has been a serious deterioration in the quality of recorded sound since the 1960's and which continues to get worse to this day.

How many times have I heard people say, "I listened to an old LP and the sound really jumps out at you". Why is this so and why is so much vintage tube equipment being restored to use? I think that I can give you an answer.

THE PEOPLE. In the golden era of sound recording, recording was done in very professional studios, by a very professional staff. The training of the staff to learn the engineering art took a number of years. There were a number of prerequisites that were required for an entry level position. Often, an engineering degree was required and certainly, a very good knowledge of music was a must. You were trained in the studios in the various aspects of studio operation and you learned the studio philosophy. Yes, each studio had a point of view about the aesthetics of music and the recorded sound, usually reflecting the views and personality of the owner-engineer. Different studios, as a result of their point of view, produced different sounding recordings. There was a character and personality which could be heard in the product of each studio and each of the studio staff engineers.

Yes, in the olden days, there were ON-STAFF STUDIO ENGINEERS. In fact, the complete studio staff were on (believe it or not), salary. Free lance people were very rare and as a result, if the client chose a particular studio in which to record, it was because of the philosophy of the studio, for the expertise of its engineers, and the quality of its sound. The support staff was equally important. Everyone knew the equipment, the wiring, the sound of the rooms, the coffee maker and the monitors.

Today, the free lance engineer comes into a strange control room, has to guess at what the monitors sound like, has to work with a strange assistant engineer, has to figure out why the coffee tastes like it does and he has to depend on the varying competence of the maintenance staff. No

wonder the music suffers!

THE EQUIPMENT. There is a plethora of equipment available today which we could not have even dreamed of in 1960. Much of it is remarkable. Much of it is garbage. Although Western Electric was the source of much of the research which we applied to the recording profession, they were mostly interested in telephone related equipment. When they developed the transistor, it was not with the audio market in mind.

At this point, the recording industry became a fashion industry. Many people who should have known better decided to keep up with the 'flavor of the month' instead of using their ears. "Solid State" ("squalid state") became the catch word of the 60's, much as 'digital' became the catch word of the 80's. The early germanium transistors were horribly non-linear and they sounded terrible. However, the people who should have known better junked their old tube equipment and they got into the era of transistor generated third and thirteenth harmonic distortion. (The research which was done in my studio on this type of distortion was published in the Audio Engineering Society Journal in May, 1973).

As the new equipment got cheaper, lighter and easier to operate, the general quality of the recorded sound deteriorated. True to Gresham's law in economics, bad product pushed out good product and unfortunately, the new, bad sound became established as the norm. It became easier to call yourself an engineer since you didn't have to know quite as much about signal flow, how the equipment operated or any of those other boring technical things. Since you didn't have to know as much, more people could call themselves engineers and so salaries began to drop. The good engineers became free lance since the studios had to begin to cut their prices and could no longer afford to pay decent salaries. In addition, the age of the unpaid assistant began.

THE MANUFACTURERS. Happy as a lark, the new transistor technology, with the proper hype, now had made most of the studios' equipment obsolete and all of the home hi-fi equipment as well. The factories both here and in the Orient could make new transistorized equipment cheaper and cheaper since the public was now made to believe that 'newer is better' and that 'solid state' was perfection. There is an old RCA ad from around 1910 with Enrico Caruso next to a wind-up phonograph with a big morning glory horn. The text is more or less "I can't tell it from my own voice". Sound familiar?

Some of the braver people listened, heard the difference and stuck with the old tube equipment. They were accused of being reactionaries or even worse, - 'golden ears'.

SYNTHESIZERS. In the 1960's the first commercial synthesizers began to appear. I was an associate of Bob Moog for many years and I set up the first commercial electronic music studio in New York, mostly as a showroom to sell Moog Synthesizers. As a musician and composer, I knew most of the music houses and commercial arrangers and I began to run up some nice sales. At first, my studio was used for its new and unique sounds. Then, on the film scores and commercials that I was writing, more and more of my clients would ask, "can you make it sound like a violin?". Beginning of the end.

From my earlier studies at Curtis Institute, Columbia University, George Washington University, and Catholic University, I knew what the musical problems were going to be with synthesized music. The wave shape from note to note doesn't vary. The subtle timbral changes that we are used to hearing from acoustical instruments and the human voice cannot be synthesized. Most musical instruments do not play tempered scales, like the piano, organ and synthesizers so when we fake a violin line, it never sounds quite right because the violin is not played in a tempered manner. Real musical expression is almost impossible to achieve with synthesizers, but they do emulate and synthesize sounds that might pass for the real thing, minus musical expression.

Again, Gresham's Law took over and since it was cheaper and easier to synthesize the music than to hire live musicians, the live musicians lost out. It also meant that you didn't need a real recording studio anymore. You could plug the synthesizer directly into a tape recorder. Didn't even need an engineer.

Meanwhile, the middle and lower range recording studios found that their demo work was disappearing because the synthesizer and midi rooms could be set up at home. To add to their troubles, commercial rents were skyrocketing. Many went out of business and many of the larger, top flight studios packed it in. It became less commercially viable to be in the studio business. Economies were instituted, like cutting the maintenance staff, but this was really self-defeating.

THEN CAME DIGITAL. A whole new world of audio fraud was launched

when digital storage media became cheap enough to be used in consumer equipment. It became cheap enough as long as you didn't have to store more than 44.1 kHz. worth of sampled information. Also, since no one but a dog could hear above 20 kHz., why not just filter out anything above this frequency, even if that is where the subtlety of musical expression lives.

WAS EVERYBODY HAPPY? You bet! The record companies could re-release all of their old catalog all over again as CDs - new life for dead inventory, and cheap, too. Didn't have to pay those nasty musicians or those expensive recording studios. The manufacturers (now almost all foreign) had a virgin market to exploit. Everyone had to throw out their old analog equipment and buy the new digital technology - even 'digitally ready' loud speakers.

THE PROFESSIONAL STUDIOS - wait a minute! They were not happy. As the record labels re-released old material, they didn't have to release as much new material. Less studio time was needed. More studios folded.

Now that we were told another big lie, 'digital is perfection', a whole new industry sprang up. How to fix digital. Bits, algorithms, psychoacoustics, dither, a whole new industry was born. The studio owners had to, at first, buy digital recorders. Then they had to buy all kinds of outboard gear to try to correct some of the problems with digital.

A failed consumer format was foisted off on the studios by the manufacturers and DAT was born. Well, it was cheap enough compared to those old analog recorders, so why not? But then, you had to buy external D/A and A/D converters and a host of other 'fix it' equipment. The sound was still quite unmusical. We were putting a Band Aid on a leper.

After a while, people began to realize that the digital sound sucked and although it was 'perfection', it was cold, gritty (much top end distortion due to the lack of higher frequency samples), and unmusical. The solution? (Don't count on it) - VACUUM TUBES.

In order to try to recapture some of the musicality of older analog recording, the solution (so it was reasoned) was to go back to some of the older vacuum tube technology. Old tube equipment was snapped up at outrageous prices to try to recapture the lost music. The manufacturers, bless their hearts, began to manufacture new tube equipment, for the most part without really understanding what they were doing. The studio owners, in desperation, bought the old tube stuff to try to keep up. It didn't help.

After upping their investment again, they cut their rates still more, tightened their belts, and waited for better times. More studios failed.

THE HOME STUDIO. It was inevitable, as I knew many years ago when I began to record whole scores on my Moog, that eventually the end would come. As the professional studios switched to digital recording, the sound got so bad that anyone could do it as badly at home using the same equipment or the newer, cheaper home digital multi-tracks. They got the same terrible, unmusical results. Why spend money on a professional studio if you could do the same thing at home. The professional studios suffered another round of price cutting and now, the whole scene has become a middle eastern bazaar. If you have open time, you sell it for whatever you can get. Since most studios have the same equipment, same sound and same lack of good staff engineers, why not go for the cheapest price. Many studios have become, as is known in economics, an undifferentiated product. One sack of rice is the same as the next.

ARTISTS VS. EVERYONE. Many of the major artists, upon reviewing their royalty statements, observed that they were running up very high studio costs. The solution for some was to build their own private recording studio. This had some tax benefits also and it made perfect sense that when they were not using the studio, they would sell the open time. With almost unlimited budgets to spend on the studio, the tax saving on high income artists was obvious and the rates charged for rentals to outsiders could be below market, since the government was picking up the tab on any losses incurred. The bean counters have taken over the industry.

TAPE MANUFACTURERS VS. THE PROFESSIONAL RECORDING STUDIOS. Seeing their sales of tape shifting from professional to home studios, the tape manufacturers have decided to sell to these smaller customers through dealers, and while they were at it, why not make the professional studios buy through dealers, too. Sell to both at about the same price. This cut out another profit center for the studios even though they still had to stock the various brands, gauges and catalog numbers in case their clients, who brought their own tape, ran out in the middle of a session. "Can I borrow a reel of 2" tape? I'll return it tomorrow".

THE FINAL FATAL BLOW. Between the deteriorating condition of many professional studios, and with the constant lowering of audio standards due to the 'new technology', many amateur engineers have decided to go from their midi-synthesizer-sampling home studios to the 'big time'. By now, due to the cheap digital recording and editing equipment that has become available, they can purchase a few software programs, install it into their

home computers and, bingo - instant recording studio. With new inexpensive consoles, it even looks like a professional studio. All of this can now be done for less than the cost of a professional multi-track recorder.

With good samples of the various instruments, musicians as we knew them, are practically eliminated. You can steal their sounds and organize them any way you want. Working out of your home, the rents are less than commercial rents and you are spared the trouble and expense of paying business taxes. All things perfect in a perfect world.

Just one minor problem - the results don't sound very good and the music has gotten lost. The commercials don't work quite as well since the music for the most part does not enhance the action. Since everyone is using the same basic sounds and equipment, the synthesized film scores all begin to sound the same. All music has become a 'rug'- it is there but it doesn't do too much.

However, since everything is digital, it all tends to sound the same anyway and we are back to the sacks of rice - an undifferentiated product. Any amateur composer can get into the act (the computer can even do the notation for you if you can't read music), any amateur 'engineer' can record, and any computer person can mix and edit. Is the result music? Mostly, no. Occasionally, yes, or as Shelly Yakus says, even a blind squirrel will find an acorn occasionally.

ABANDON HOPE, ALL YE WHO ENTER THESE PORTALS? NO. In spite of the foregoing,

I think that there is a great future for the recording industry. If we return to the basic values of the art, the art of critical listening. In an age of political correctness and financial expediency, it is too rare that dissenting opinions are heard. The 'perfection' of new equipment often results from well written ads, rather than critical listening evaluation. Unfortunately, to be able to evaluate and to be critical requires a certain musical and engineering education which is produced by good teachers and a great deal of learning time.

In an age of instant everything and when we begin to believe in the 'lucky break', 'winning the lottery', 'getting rich from a law suit', to say 'pay your dues and learn your craft' may be whistling into the wind. If we don't encourage this education and if we don't help to train the next generation of engineers, the fine art of recording will deteriorate still further. It can be done. Recordings can be made which will have the musical sound and

musical impact that those better LP recordings of the '50's and 60's still have.

ALL IS NOT LOST. Here and there, there are still a few oases where the tradition of good sound is still pursued. Combining modern technology with the traditional craft of recording, with musicality and taste, with good old equipment and good new equipment, good work is still being done. Just not often enough.

This is not a view of the world that longs for the past. Quite the opposite. I am only unhappy about the fact that in many areas of my studio operation, I have to keep ancient equipment running because no one has come up with equipment that sounds better. To keep 40 year old analog tube tape recorders running is no joke. To keep 50 year old tube microphones operational is silly but that is what we are doing in an industry that prides itself on new technology.

Because too many of us have not learned our craft and because sonic standards have been allowed to deteriorate through the years, we find ourselves in a very troubled industry. As Pogo said, "We have seen the enemy and they are us".

What have they done to my art? 'They' didn't do it. We did, but I refuse to go along with the trend.

Walter Sear