

30 Early Studio

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I'm Doug Fearn and This is My Take On Music Recording.

People are sometimes amazed to hear that I was operating my first studio for several years before I was ever in another studio. It wasn't a conscious decision – it was just the way it worked out. I could have made an effort to visit or work in a studio, but my studio was busy from the day I opened for business and the opportunity to work elsewhere just didn't come up for a while.

But let's go back a bit and see how I became a studio owner.

As you probably know from a couple of my previous podcast episodes, I was not exposed to recorded music until I was in high school. Well, of course I heard music on television, but that really had no impact on me. My exposure was to live classical music since my father played in the Philadelphia Orchestra and for some reason, he often took me with him to orchestra rehearsals at the Academy of Music in Philadelphia.

Consequently, my notion of what music was and what it sounded like was shaped by hearing one of the world's finest orchestras. Also, my father played in a woodwind quintet that often rehearsed at our house. From a young age, I would sit with the players and absorb the glorious sound of the bassoon, oboe, clarinet, French horn, and flute.

Why my father exposed me to this music is still somewhat of a mystery to me, and he is no longer around to ask. He didn't do that with any of my younger siblings.

He did not encourage us to play an instrument. He lived in a world of highly competitive skill and artistry and I think the thought of a beginning student on any instrument would have driven him crazy.

However, he did arrange for me to have two years of solfege training, which is basically sight-reading music, ear training, and singing. Honestly, I didn't much like the weekly class, taught by a Philadelphia Orchestra string player, but I now recognize the value of that early musical training. I also learned that I am not a singer. I am cursed with the ability to hear minute pitch imperfections without the physical ability to maintain the proper pitch.

I was also interested in science, and that interest gravitated toward electronics. Here, I was on my own. My parents had an interest in science but no more than a layman's understanding of it. But they did encourage my interest, even if what I was doing was incomprehensible to them.

I was seven when I went to the public library and took out a book filled with electricity experiments. I struggled through the learning process because I had no one to help me understand. I think the book was meant to be used in a teaching situation.

That experience of learning something entirely on my own has persisted through my life. And it inspired me to conclude that nothing is as difficult or hard to understand as the people who do that for a living would like you to believe.

My first electrical experiments were with batteries, lightbulbs, and electromagnets. That gave me insight into how those things work. When I tried something and it didn't work, I would study it even more to figure out what I was doing wrong.

Soon after that, I built a crystal radio receiver, which only picked up one station, WPEN in Philadelphia. That was ironic because out of the dozens of radio stations in Philadelphia, I would end up working at WPEN, as an engineer, starting when I was in high school.

The Philadelphia Orchestra recorded for Columbia Records when I was a kid, and they did the recording in a hotel ballroom a few blocks from the Academy of Music. I was not permitted to be there while they were recording, but I did get a glimpse of the setup. I was about 9 years old.

A couple of times a year, an Orchestra concert would be televised, and for those, I was permitted to watch the process backstage. I didn't know what the equipment was at the time, but my memory of the audio setup is very clear in my mind. They used a single RCA 77 hung from the ceiling of the Academy of Music for the pickup, and that fed an RCA OP-6 mic preamp. That was it, except for an announcer's mic. I was only mildly interested in the video setup, but I remember there was a lot of yelling during the concert, which I thought was very distracting. I suppose that was the director calling for camera shots. I do remember that they rarely managed to get the camera on the featured instrument or section at the appropriate time.

That was in the days of live television, so I could only watch the orchestra broadcast if I was home at concert time. This was black and white TV, very low resolution compared to today, and the video system had a limited dynamic range. I remember my father wearing a special blue shirt for TV, since white was forbidden. The cameras could not accommodate anything that was pure white without it overwhelming everything.

Watching and listening at home was like going to a concert and experiencing the orchestra through a keyhole. It was nothing like being there. The sound was tiny and tinny. The pictures were crude.

That probably explained why my father disliked recorded music. We did not have the ability to play a record in our house.

My electronics interest soon lead to radio. But I never listened to music on the radio. I was more interested in receiving distant stations. And one day when I was 10, I found a beautiful Zenith radio out on the curb for trash pickup. I didn't want the ornate cabinet, although it would be worth a lot to a collector today, so I only took the heavy guts of the radio, and its speaker, home with me.

The radio didn't work, but I figured out what was wrong and got it playing. The radio received the AM broadcast band, but it also had shortwave reception, and I found that more interesting than the local broadcasts.

Listening to shortwave stations from around the world was fascinating. I would tune around, find a station in a far-off country, and use my National Geographic world map to locate where it was coming from.

The shortwave frequencies were filled with all sorts of other signals, too. Some ships at sea, although most of that communication was conducted with Morse code. My Zenith radio could not receive code properly. There were lots of mysterious signals that were baffling to me at the time, but I now know they were radio teletype, fax, radar, or encrypted messages.

And I also came across Amateur Radio operators, at least those using voice communications. Their conversations were mostly kind of boring, but it was fascinating to hear where they were located.

I wanted to know more about Amateur Radio and I got a couple of very out-of-date books from the library. And those lead me to more current information.

Around the same time, I read an article in an electronics magazine for hobbyists about how to build an intercom. I thought that would be a fun project, but it required an audio amplifier. By this time, I had accumulated many thick catalogs from electronics parts suppliers, and in one of them was an audio amplifier you could build from a kit.

I had never built anything that complicated before, and it required soldering the parts and I did not know how to do that.

For Christmas that year, I got a soldering gun from Santa and immediately started learning how to use it to make neat and reliable connections.

It took a while, but I saved up my allowance to buy the audio amplifier kit, which was around ten dollars (nearly \$100 in today's money). The instructions made it seem pretty easy, and by careful attention to detail, and constantly checking and double-checking, I completed the kit. I was delighted that it worked.

This was a vacuum tube amplifier, of course, and very simple and basic. But it did the job. I built my intercom, which remained in our house even after I had moved out on my own.

I learned Morse code and studied the electronics theory and regulations in order to pass my Amateur Radio license, which I did when I was twelve. By that time, I had built a shortwave receiver that properly detected Morse code signals. This was also from a kit.

For a transmitter, I had a homebuilt device that put out a whopping five watts of power. Still, using that transmitter allowed me to make Morse code contacts with other Radio Amateurs out to about 500 miles.

During this time, I continued experiencing music from the Philadelphia Orchestra and that was when my musical tastes started to develop. There were a few key pieces that had a profound impact on me. The first one was Stravinsky's "Rite of Spring." It is still one of my favorite musical works.

But when I first heard it, I thought it was strange, foreign, and somewhat scary. That was the same reaction the piece had at its premier in 1913. Concertgoers and critics hated it, and it was not performed again until 1924. It gradually gained acceptance and it has influenced most classical music ever since, and it is still influencing film scores.

The Orchestra was rehearsing *The Rite of Spring* and I was backstage, wandering around. When they started playing it, I was compelled to get closer to see what was going on. I arrived in the stage-left wings just as the augmented double-bass section began a powerful and rhythmic part. I could not believe the sound. We think of stringed acoustic instruments as relatively quiet, but when you have eight double basses playing in unison, the sound is overwhelming. You could feel it. This was terrifying to a 9-year old, but I was mesmerized. I learned from this piece that you could use melodic instruments as percussion, something I still like doing.

Another piece that got my attention back then was Ravel's *Bolero*. This is where I first learned about dynamic range. In performance, that piece has to have a 100dB range. It starts from a tiny sound of a snare drum and flute and it builds continuously through the 15 minutes or so until it ends in an extremely loud crescendo. Drummers of all styles could learn a lot by listening to how the lightest hits on the snare can be effective. The piece is just the same theme repeated continuously, with the drama increasing simply through arrangement and dynamics.

Unlike *The Rite of Spring*, the *Bolero* was an instant hit when it was first performed in 1928.

In retrospect, I see that I was attracted to early 20th century classical music. Another of my favorites during my youth was Bartok's "*Concerto for Orchestra*," from 1943. My father suggested I would like it when he saw my fascination with Stravinsky.

All three of these remain favorites of mine.

It was some years later that I encountered Bach in his simplified form. What I had heard until then was orchestral arrangements, which are wonderful, but there is something magical about his works when performed in a minimalist rendition. There it is easier to follow his complex and beautiful structure. No other composer has ever matched the perfection of his intertwining melody lines.

My high school had an FM broadcasting station, founded in 1949 by the principal of the school who took advantage of the newly-created FM broadcasting service. The FCC allocated a limited number of channels at the low end of the FM band for non-commercial, educational radio broadcasting. My school was the first high school to take advantage of this opportunity, and the station continues to broadcast to this day. It has always been operated entirely by the students, with some outside professional advice.

When I entered high school in 1963, I wasn't all that interested in the radio station. My interest was in two-way communications with people all over the world, using Morse code, and broadcasting seemed boring by contrast.

The station had a limited daily broadcast schedule, starting at 2:30PM and signing off at 5PM. That was due to the requirement that the faculty advisor be present at all times. But the station did broadcast many of the sports events by the school teams, so there were evenings when we aired basketball games, and Saturday afternoons for football.

Most of the regular broadcast day was filled with musical programs, and since the faculty sponsor liked Broadway shows, we played a lot of music from those. And some big-bands and classical recordings, too.

The technology of the radio station was interesting to me, and since the station ran according to the conventions of the day, the staff was divided into engineers and announcers, along with some support staff. I was not interested in talking on the radio, but the engineering side seemed intriguing.

You can hear more about the how engineers were actually the producers of radio back then, in my podcast episode 17, “What Radio Broadcasting Taught Me About Recording.”

The station also aired live drama programs, like old-time radio. The station had several studios, but only one central control room. The “big” studio served double-duty as a classroom during the school day, and like all the other classrooms in this 1954 building, it had an asbestos tile floor, concrete block walls, and an ineffective acoustic ceiling. This was not optimum for a classroom, due to the reverberation, but terrible for a radio studio. This is where I learned about lousy acoustics. We didn’t use that studio much because it sounded so bad.

The station had always used just one omni mic in the center of the performers for radio drama productions. This ruined the illusion of wherever the story action was supposed to be taking place, but no one else seemed to care. When I engineered these productions, I used several mics, each with only a couple of performers working much more closely. That Improved the sound considerably.

The station also broadcast school orchestra and band concerts, from the auditorium. We had lines running to many places in the school, so this was easy to do. And once again, the historical setup was one omni mic hanging from the stage lighting array back about 20 feet from the stage. When I had the opportunity to set this up, I used that arrangement, too. But it sounded unbearably awful to me. I go into this in more detail in episode 3, “An Overview of the Music Recording Process.”

The 1960s ushered in an era of innovative music, and young people, and some not so young, put together bands to perform songs by their favorite artists. And in my high school, there were students who did this, too. At some point, I was asked to record a couple of songs for friends. I told them that I had no idea how to record that music. I hadn’t even heard it before. But one of the band members, who is still a close friend, gave me some records by the Beatles, Rolling Stones, and others, so I could hear what they wanted. During off-the-air hours at the radio station, I would play those records and try to make sense of them. It was like nothing I had ever heard before, and initially I did not like them. But as I came to understand the music better, I found that I did like some of it. It certainly was different from the classical music I had grown up with.

This led to my introduction to pop music recording. We recorded one Saturday afternoon, using the larger Studio A slash classroom, and it certainly did not sound like the record. But I could hear the differences and worked to correct them. I had a limited selection of mics and mic inputs, so that was a limitation. This was all mono, of course, recorded on an Ampex full-track tape machine.

I used an RCA 77 in front of the drums, which worked well and is not all that different from the technique I used most of the time today. I put an omni mic in between the two guitar amps facing each other, and another on the bass amp. Two of the band members sang, both while playing guitar, and this was a challenge since the drums and guitars overwhelmed the vocal mics.

My solution was to put those two singers in another, smaller studio, with their guitar cables running under the door. I used one mic for the two vocalists, and this gave me excellent isolation of the voices.

This necessitated headphones, so everyone could hear each other.

The band was very pleased with the results, and I was surprised that it didn't sound as awful as I feared it would.

The key thing here is that I was solving problems using what I had available to me, and without any knowledge of how this was done by professionals. The solutions seemed intuitive to me. That doesn't make me a recording genius, but it illustrates the approach I have always taken to solving problems. That is, figure out what bothers me the most and do my best to fix it. Then move on to the next thing that still bothers me and fix that. That is how I have been recording ever since, and it also directs the way I design products for my company.

My life in general has been a quest to eliminate things that I find annoying. As my friends and colleagues know, high praise from me on a recording or a piece of equipment is the statement that "nothing annoys me."

The other driving force can be summed up in my eternal lament, "play me something I haven't heard before." Back in the 1960s, every week introduced you to music unlike anything anyone had heard before. I miss that type of innovation.

Anyway, those are the things that motivated me back then, and still do today.

The school radio station taught me enough that I could get a job in a commercial radio station, as an engineer. You can hear much more about that in episode 17.

By the time I started working at WPEN in Philadelphia while a senior in high school, I knew for sure what I wanted to do with my life. I wanted to have my own recording studio.

I wanted to design a space that had all the features I thought were important, which included good acoustics, and an isolated control room, with the best equipment I could afford.

That, of course, required money. Also, the laws at the time made it impossible to set up a legitimate company until you were 21. In fact, you couldn't do much of anything until you were 21 back in those days, except get a job and serve in the military.

The radio engineering job paid very well, and I enjoyed the work.

During the four years between when I started working and I was 21, I acquired a lot of great equipment, which I used for location recording. I found a used Ampex quarter-inch mono machine and used that initially, but I really wanted to record in stereo. I found another Ampex with a transport that had major problems, but the electronics were fine. By changing the heads to stereo and combining the electronics from both machines, I had a functional 2-track recorder.

Not long after that, I bought a new Scully 280 2-track, which, although solid-state, sounded very good.

The first mics I bought were a pair of Neumann KM84s, which had just been introduced. I also acquired some RCA ribbon mics from WPEN, since they saw no use for them.

A lot of what I recorded were performances, almost all musical, in a variety of styles. Some I even got paid for. I recorded in small concert halls and auditoriums, and, one time, in a gigantic arena that seated thousands. While I was setting up, the drummer for the concert was playing on the stage in the middle of the hall. The drums sounded enormous in that empty arena. The reverberation time had to be several seconds. That made an impression on me, but I realized that such space is very difficult to control.

Occasionally I would rent space to record. One of my favorites was a good-sized auditorium on the second floor of a fire station. Everything was wood and real plaster, and it was pretty reverberant. But I found that by using the many levels of stage curtains, and careful instrument placement, I could get good presence on the instruments and vocals, along with a nice feel for the large space.

I couldn't rent a building, so location sessions were my only option. And that gave me good experience in a wide variety of venues, some great and some pretty terrible. But I learned from each of those projects, and that helped me refine what I wanted for my studio.

One of the most valuable things I ever did was becoming a member of the Audio Engineering Society and attending their convention in New York every year. There I could see the equipment and talk with the people who built it, and listen to talks by the experts. I made great connections at the AES Show, and although all of those I knew then are gone now, their insight and wisdom was extremely helpful to me.

Of course, reality intervened and I could not afford the huge building I wanted for my studio. But as I studied books on acoustics, and read the AES Journal and the recording magazines, I was fairly certain about what I could do within my budget.

Keep in mind that back in the 1960s there was only one level of recording equipment. You did not have any "entry level" stuff. What you could buy was the same as what any studio owner in the world would use. That meant expensive.

There were some areas of the studio equipment I could not compromise on, like tape machines and microphones. But I could build other things I needed, or adapt relatively old and cheap gear that no one wanted.

And so my first studio was a combination of state of the art gear and some really old stuff from the 1930s and 40s that still sounded good to me. My electronics background gave me the skills to fix this old gear when it wasn't working.

I found a building for rent that was quite a bit smaller than my dreams, but the price was reasonable at \$95 a month. It was on the end of a row of storefronts on a residential street just outside of the Philadelphia city limit. And the building owner had no problem with me doing extensive renovation to the space.

The building was brick, and well-isolated from the outside, and the adjacent space was used by a hair salon, so women under noisy hairdryers were not bothered by any sound leakage. On the other side was a city playground that was permanently locked, so no noise there, either.

Inside, I divided the space into three main areas: a front office/reception area, the studio, with an isolation booth/soundlock leading into the control room.

The studio was about 25 by 16 feet, with a 9-foot ceiling. The actual ceiling was higher, but for isolation, we built a room within a room. The control room was about 16 by 12 feet.

Neither space was really adequate, but it was OK.

On my 21st birthday, a lawyer filled the articles of incorporation for Veritable Recording Company and we began construction a few weeks later. The studio was ready for operation after about three months of construction.

I was fortunate to have friends who worked in construction, and they helped teach me the building techniques I would need. And they were musicians, so I was able to trade their work for studio time.

When I was ready to open for business, I had an Ampex 4-track half-inch tape machine, my Scully 2-track, and my old Ampexes, which I put back to two mono machines.

I couldn't afford a recording console, which were very expensive and actually still a new concept. At that time, studios used either broadcast consoles or built their own.

I took the latter route, using a variety of tube mic preamps I had acquired, and a passive mixer that used another pair of mic preamps as summing amps. Initially it had four inputs, but I soon expanded it to 8.

My mic collection at that time consisted of my KM84s, two RCA 44s, an RCA 77, a pair of RCA BK5s, and my prized mic of the time, a Neumann U87. The U87 had just been introduced and quickly took over as the go-to mic for vocals, relegating all the old tube condenser mics to oblivion.

My first monitor speakers were made by IMF, a small company that catered to audiophiles. They sounded pretty good, but couldn't produce much level. I soon replaced them with Altec 604s, which were the standard monitor speaker in studios for 25 years previously and another 25 years after I first used them. I continued to use the 604s, or the UREI updated version, up until a couple of years ago.

I didn't have any outboard gear at first, but I made-do with what I did have. I used the Ampex mono machines for tape echo, which was OK if you kept the level low in the mix. I did not have any compressors or equalizers, so I learned how to use mic choice and placement to get the sound I wanted.

WPEN for many years used a tape echo machine on everything, to give the station a distinctive sound. The machine to do this was made by a Hollywood company called Surround Sound, and it was aimed at the film industry.

The machine was huge, in its own rack. It used a continuous loop of tape that ran around a large wheel over a foot in diameter. The record head was on an arm that could be rotated to any point around the wheel, adjusting the delay time.

There were three playback heads at the bottom of the wheel, each with separate level controls, Langevin equalizers, and feedback controls. The delay ranged from a few milliseconds to many seconds. The machine even had a series of separate rotating tape guides, so you could route the tape around them to get even longer delays.

I continued working at WPEN for a couple of years after my studio opened, and when the station decided to stop using the Surround Sound machine, I bought it from them.

This device was useful in a number of ways, and I quickly figured out you could create some unique effects by moving the record head during recording. Moving it backwards stretched out the audio, slowing it down and dropping the pitch. Moving it the other way had the opposite effect, speeding up the audio and raising the pitch.

It wasn't an everyday effect, but it was a lot of fun to play with.

I started recording some station promos and IDs for another Philadelphia station, an FM station just starting to broadcast the new music of the day. The Surround Sound machine became a sonic signature of the station. I never told the people at WPEN that I was making recordings for a rival station.

Back in those days, all tape machines used synchronous capstan motors to control the tape speed. These relied on the 60Hz AC power to maintain speed, which is remarkably stable. But if you could change the 60Hz power into another frequency, you could change the tape speed.

I came across a huge tube audio power amp, which was probably used for a large PA system. It put out hundreds of watts. With a few modifications, it could drive a capstan motor. I used an old Hewlett-Packard audio oscillator to drive the power amp, and that allowed me to change the speed of the tape machine.

This was a very common technique in the 1960s. It could be used for mundane tasks like fixing a tuning discrepancy with a fixed-tuned instrument like a piano or organ in an overdub. But it could also be used as a creative tool.

Typically, it was used to record over-dubbed vocals. By slowing down the tape a bit while recording the vocal, the vocal would sound a bit thinner and younger when played back at the normal speed.

This was used extensively by the Beatles and others.

It also allowed singers to hit a high note that was just above their range. Or slowed, down, a guitarist could play a complex lead part that sounded impressive at normal speed.

And I could make instruments sound completely different. A euphonium became a tuba, or a cello could become a double bass. Other instruments would be unidentifiable with a speed and pitch change. I used that technique on steel drums, pianos, clavinetts, kick drums, and others. On doubled parts, a slight tape speed change helped make the second part a little different from the main part.

The amount of speed change was minimal – usually less than 1% -- so the part did not sound like a cartoon. The effect could be subtle. For effects, the change could be more drastic.

My studio was crude, but the quality was good. And by using what I had in innovative ways, I could create some interesting sounds. I think it is a shame that digital audio has made the variable speed approach difficult to do. One exception is the Radar recording system, which does have some limited variable speed. I keep my old Radar 24 operational for that reason.

At first, I tried recording the drums in the room with everything else. That was OK with electric instruments, but with acoustic guitar or piano, it was unworkable. The solution was a drum booth, which I hated to do in the limited space I had in the studio, but it did solve the problem.

When I opened, I had a very old Mason and Hamlin grand upright piano that sounded great, but was falling apart inside. I soon replaced it with a new Baldwin upright, which never sounded nearly as good, but at least everyone liked playing it. I still have that piano, by the way.

The room was too small for a grand piano.

What I needed was a real console. I was contemplating building my own when a local company approached me about making a console. They wanted to get into that market, and my studio was nearby and would be a test bed for their design.

The console was solid-state, of course, and sounded awful to me. But it did have 12 inputs, eq on each module, a compressor on several of the modules, effects sends, and a separate monitor section. I was disappointed in the sound, but often used my tube preamps to feed the tape track directly, bypassing the console.

Four-track is a very limiting format. I approached it a bit differently than the way most people used 4-tracks, which I didn't know until some time later.

Since I was used to capturing an entire performance on a two-track, I used two tracks on the 4-track for the rhythm track, in a nice stereo mix. Then I had two tracks left for overdubs. And I could use those two tracks to bounce back and forth, building up the parts.

This worked fine, but the competition in town was now mostly 8-track and I knew I needed that format to keep clients.

I found a used Scully 8-track, one-inch machine and soon the studio was back in the game.

8-track is another cumbersome format, because there are enough tracks to do some overdubbing, but rarely enough to keep every sound on its own track.

I bought the 8-track from a studio in Philadelphia that was going out of business. I had planned to just buy the 8-track machine, but the owner had a lot of other stuff he wanted to sell and I was too excited to pass up most of it. So, I ended up with not only the 8-track, but also a disc-cutting lathe, a lot of microphones, mic stands, headphones, and some outboard gear like a LA-3 limiter.

One of the mics I acquired was a Neumann M49, which I don't think he even wanted any money for because it didn't work. I got it functional and then sent it to Gotham Audio in New York for a refurbishment. Honestly, I didn't much like the M49 at first, but it grew on me.

Other mics I bought included a pair of Altec small-diaphragm condensers, Electro-voice RE10, RE15, - RE16, and 655C dynamics, and an interesting PML tiny tube condenser that was meant for use as a lavalier mic. The case was thin aluminum and the sub-miniature tube made the mic too hot to touch if it had been on for a while. There was no connector, just a permanently-attached cable that went to the power supply. It hardly looked like a professional mic, but it sounded unbelievable. It was particularly wonderful on horns.

The music I was recording at this time ranged from singer-songwriter acoustic stuff to R&B. Since we were in Philadelphia, the music scene was dominated by Gamble and Huff and Thom Bell, all recording at Sigma Sound Studios. You can learn more about that era in my interview with Sigma founder Joe Tarsia in episode 26.

We didn't get many of the A-list clients, although we did get some of that work. Often we would have the lower-level artists, who might become A-list later. And we often got bookings to record the B side of a single that was recorded at Sigma. Back then, most songs were released as a 45, and they always needed a B-side. For a while, we jokingly referred to ourselves as "B Side Studios."

I learned to love R&B from those sessions and it's still one of my favorite genres.

A typical mic'ing setup at this time would have a dynamic mic on the kick drum, a KM84 on the snare, and pair of small-diaphragm condenser mics as overheads, and RE-15s on the tom-toms. I used one of the E-V dynamics on guitar amps, and a homemade direct box for the bass. Acoustic guitar would have a KM94 and the vocal a U87.

For horns, I would use the little PML mic, plus KM84s and maybe the U87. Strings used the KM84s and other condenser mics as needed.

The piano was always a challenge. It never sounded good to me, and that was largely due to the piano itself. The U87 seemed to be the best mic for that. Ideally, I would mic the piano from the back, but space constraints made that impractical except for overdubs. Usually I put the mic above the piano, very close, aiming down. If I had the luxury of recording the piano in stereo, I would use the KM84s in X-Y.

In 1967 I was talking with Jim Croce, who was on Capitol Records and had access to an early release of the Beatles "Sargent Pepper" album. He told me that it was going to change music, and he was right. I had a friend make me a bootleg copy of it on tape, and I studied that recording for weeks. There were sounds that I never heard before and I wanted to figure out how to do them. I never fully succeeded, but that was OK because studying that album changed everything about the way I recorded.

It seemed that every day there was something new out that was unlike anything I had ever heard before. Like Stravinsky, it initially sounded strange and foreign to me, but it kept drawing me back. Many of the artists from back then made one album and were never heard from again.

I was still at WPEN and friends with the record librarian. The record promoters were constantly giving him new albums and singles, most of which were unlikely to ever be played on the station, with its middle-of-the-road format that relied heavily on Frank Sinatra and similar artists.

The record librarian would put aside for me all those records that were of no interest to the station. I would go through them and listen to many of them to see what they were about. That exposed me to a lot of cutting-edge music.

WPEN signed off at 2AM each morning and came back on the air at 5AM. I often worked a shift that ended at 2AM, and with the WPEN-FM transmitter off the air, I could pick up WNEW in New York on my drive home. WNEW played much of this music I was discovering, plus a lot more I had never heard.

I even tried to convince station management to adopt that new format for WPEN-FM, which duplicated the AM programming half the time and then played pre-recorded hours-long tape of Hawaiian guitar music the rest of the time. Weird, and a waste of a valuable signal. But I could not convince management to try the format, even on a part-time basis, because they said they could not sell commercials to advertisers for that kind of music.

Of course, another FM station soon picked up that format and WPEN missed the chance. That was the station I was recording promo elements for.

But it was acoustic music that I really wanted to record, and we did plenty of it. Most of it had limited commercial potential, but I didn't care. As long as we had the other work to pay the bills, I was happy to offer studio time to good performers that I enjoyed working with.

In fact, I developed a sort of musicians' cooperative, with about a dozen talented people on a wide variety of instruments, who would come in to play on each other's songs. It was a nice atmosphere with everyone helping each other, and bringing many different talents to the projects. Occasionally these projects did result in some label exposure and a bit of income, but mostly the projects were a labor of love.

The story continues in the next episode.

This is My Take On Music Recording. I'm Doug Fearn. See you next time.