

A REVIEW OF THE SMC AUDIO

ULTRA MICRO PHONO DRIVE

by Francis Baumli, Ph.D.

Katie was witty, impressively intelligent, and very social. She also was tall, slender, and gorgeous. With platinum blonde hair (natural), a model's face, and skin so white she looked angelic, I felt thoroughly honored to, for a while, be her boyfriend. But there was one unusual thing about Katie. She had more self-confidence than just about anybody I ever knew despite the fact that she also had the worst stutter I had ever encountered. There were only three occasions when she did not stutter: When she talked in her sleep (which she did a lot), when someone would rouse her ire by trying to help her with her stutter ("Don't you dare finish my words for me!"), and when she was in the throes of carnal abandon.

Being so confident, and so thoroughly social, she even took opportunity for entertaining friends with her stutter.

One of those fancy ice cream places had just opened out on the periphery of the town where we both

attended college, and she liked going there with friends. At this joint, Katie's favorite line was: "I want two scoops of papaya ice cream with pink sprinkles all put in a paper cup." (Do not even try imagining how long it took her to say all this, or you will start stuttering as badly as she did.) Her friends would be in stitches, the server in an agony of embarrassment, and Katie would be filled with glee even as she worked hard at getting that sentence out. (Witnessing her pleasure in embarrassing that server was the only situation in which I ever saw Katie being less than a nice person.)

This was spring of 1968, during my sophomore year in college. I was a budding audiophile already, but with little money, and not much equipment. In truth, "high-end" wasn't much of a reality back then. The really good speakers were JBL, AR, and E-V. Also Jensen (sometimes), Altec Lansing (almost), Klipschorn (supposedly). High-end wire hadn't even been thought of. The really good turntables were ... well, there weren't any (unless you are more generous on this topic than I am). The best source was reel-to-reel tape, and there were some very good tape recorders back then. My pride and joy was a top-of-the-line TEAC which I kept meticulously maintained. With a pair of microphones

that cost \$1500 each, on extended loan from a rich friend's recording studio, I could get some great recordings even if I lacked decent gear for playing them back.

Not that I was entirely devoid of playback gear. I had good enough equipment I had already been able to identify what I considered the three most elusive grails in audio playback (and I believe they still are): 1) Deep solid bass that is neither tubby nor contaminated with unwanted harmonics. 2) Detail in the high register without undue brightness. 3) A rich round tone in the lower midrange that has considerable weight, blooms lusciously, but retains precision. The first of these goals I had already attained. I had built a cabinet with two 15's that was flat to 35 Hz with nary a trace of harmonic distortion caused by either the drivers or the cabinet. But as for those two other goals, I had not attained them, nor had I heard them successfully reproduced on anyone else's stereo. (And even now—year 2015, almost half a century later—I too rarely hear these three difficulties overcome in even the best of modern high-end systems.)

But I was sure my tape recorder was taking down this information accurately. I had even, with the help of an engineering friend, managed to verify this with

an array of oscilloscopes. And somehow I knew the day would come when audio playback gear would catch up with tape recorders. I think it was seeing the remarkable improvements, year by year, in JBL speakers which made me aware of this.

Very often, when I recorded, since I was aware that what I was getting on my tapes contained much more information than the best stereos were reproducing, I was practicing an act of faith—believing that the day would come when stereos could reproduce all this. I took on a kind of private mission: I would record sounds for the future. These might be birdsongs, a good washboard player in a Cajun band doing a solo performance, or odd sounds like a pair of scissors snapping shut, or different kinds of paper being slowly torn apart. Also there was that plentitude of sibilants Katie was using as she got out that sentence, "I want two scoops of papaya ice cream with pink sprinkles all put in a paper cup." There was a rich mine of detail without brightness there. I resolved to record it, arranged for the recording to take place in a friend's basement, and Katie arrived in very good spirits what with having been assured that she was about to become a part of audio history. So we began the recording, but not 15 seconds in to our recording, the machine's

capstan fell off. So that day's work did not get done. I had hopes that we could do it again. I was even trying to work out a scheme which would involve arranging matters with Katie (who was not entirely without modesty) so I could record her amazing command of the lower midrange register.

However, there would be no further recording sessions. Katie and I split apart. The relationship had never quite been monogamous anyway. The truth was, we both were just too young, too busy, and too social for that kind of commitment. At one point, after a couple of weeks when we both were going in several different romantic directions at once, we sat down and had a serious talk. At the end we both agreed it was best to not think of ourselves as a romantic couple anymore. So we parted amiably, although we did not part entirely, since we still remained good friends and socialized with the same people.

After the split-up there was not a trace of rancor between us (Katie was too good-natured for that, and I suppose I was too), but the relationship was no longer emotionally spacious enough to warrant the time for recording that incomparable sentence of sibilants. And I definitely had lost all opportunity for recording her lovely lower midrange. (Looking back, I actually think

Katie and I drifted apart because she wanted someone who did not try to mix audiophilia with fun and frolicking. In short, she wanted someone who wasn't an audio nerd. As for myself, I was thoroughly a workaholic. I was mixing audiophilia with a part-time job in a music store, and playing music in a band. This latter role, counting rehearsals, is always a full-time job by itself. In short, I needed someone who had less time on her hands for playing—and fewer expectations about my having time to play. So we parted, and were prudent enough to do it amiably. I daresay we both made a wise choice.)

Although reel-to-reel was my preferred source back then, I loved LPs too, and gave up my Sears "Silvertone" portable for some stand-alone components: I bought a Radio Shack turntable (which even then I knew sounded awful) and a Radio Shack phono preamp which was tiny, had an onboard power supply, cost only about 20 dollars, and was so good I would hold on to it through several turntable transitions before I finally gave it away when I got something that was clearly better.

There were many other upgrades. Call them instantiations, or incarnations, but the high-end industry was improving exponentially. I upgraded

everything, many times, always paying most careful attention to turntables, cartridges, and phono preamps. As to cartridges, for a long while I attained considerable satisfaction with several different Audio-Technica designs (I forget the model numbers) before I switched to several Shure models (they were never quite right) and then the wonderful Grado ``Signature'' series which I stayed with for years: first an 8MZ, then an 8MZ body with an MCZ stylus (which I preferred to the MCZ body with its own stylus), then settling with the \$600 XTZ which beat out any competition in its price range (even when the price climbed to \$750 before it was discontinued). My turntables got better, and more expensive, although I knew I had a long way to go even here. For phono preamps, I finally hit a temporary apex (lasting 5 or 6 years) with the Audio Research ``SP-10.'' That big preamp, with its separate power supply which was just as big as the preamp itself, had an on-board phono preamp which used no fewer than 8 tubes and truly had glorious sound. But even here there were problems. That preamp not only was expensive to buy, it also was expensive to maintain. With 8 tubes in the phono stage, and 7 in the other part, that was a total of 15 tubes. About once a year I would have to replace one or more tubes, and about once a year the

unit would have to go back to the factory for repair—which always included all new tubes.

There was a joke going around at the time (and which still deserves to be going around):

Question: Do you know why you need two Audio Research preamps if you want to hear your music in true stereo?

Answer: So you have one preamp to use while your other one is back at the factory getting fixed.

But even with this expense and aggravation, I realized I was lucky. My "SP-10" (Rev 7) was a good one. I came to know several people who had this preamp, and soon found out that these units varied significantly in quality. I had the best one I ever heard. A friend who lived 125 miles away had a bad one and he knew it. Once we even put them side-by-side, switched power supplies, even switched all tubes, and there was nothing we could do to make his "SP-10" sound good.

There was another problem with this preamp too (and here I reveal a bias): the mere fact that it was a tube preamp.

I have said this many times: Tubes can definitely sound better than solid state, but only for a short

time. Tubes are a battle, and while we all are crazy enough to go to battle over something now and then (my battle is with setting up turntables impeccably), I am just not cut out for the travails that come with tubes. They have three problems, none of which I want to deal with: 1) Like lightbulbs, they just suddenly burn out, especially when you are right in the middle of enjoying the music. 2) Even if they don't burn out, they have a bad habit of developing problems like spitting, hissing, howling, or they just decide to change their sound—gradually or abruptly. They also like to inflict subtle discomfort by demonstrating that there is a miniscule difference between highly-euphonic and slightly-microphonic. They get stuck in their sockets and break when you try to pull them out. Sometimes they even burst when the preamp is on and there is a small but scorching fire that melts part of the circuit board. 3) My main gripe is with changing tubes. No matter how carefully you attempt to match a new tube, or tubes, with what you already have, they never sound the same. You might get accustomed to the new sound; maybe eventually you will even prefer it. But when the change is first made, there is always that sense of aural dissonance caused by the fact that the sound is different.

Some audiophiles do not mind the "tube tussle." They are simply willing and able to accept this liability. Many even enjoy the challenge and the work. But as for me? Not long ago I was listening to a worthy engineer's all-tube phono preamp with him while a lot of spitting and hissing was going on. He could tell that 2 of its many tubes were being problematic. I noted that this problem is why I tend to stay away from tubes. He testily replied, "That's a small thing to overlook when you're getting better sound." But to me it wasn't better sound; it was irritating sound.

Other audiophiles do more than accept the inevitable travails with tubes; they become "tube rollers" (aka "tube jocks"). I find this approach actually to my liking, but only as long as it is others, and not me, doing the tube rolling. They thrive on it, they exult when they succeed in buying a treasure trove of NOS Mullard's or even 1930's top-sealed tubes. And I must admit that when I am listening to tube equipment with someone who is a tube roller, I am much more relaxed because I know that if a tube goes down, he has on hand a dozen replacements to choose from, which means we very likely will soon be back to the music. So ... please do not take this lamentation about the travails of tubes as covert slander against

tube aficionados. If anything, I admire the patience and persistence of tube rollers. If the variables and vagaries of tubes excites them, fine. Surely their willingness to hassle with tubes isn't any worse than my willingness to spend half a day getting a finicky cartridge aligned just right. And I myself have spent a great deal of time dealing with tubes, in several different components, and obviously it was worth it to me with that ARC "SP-10." At least it was for several years.

But the day came when it went back to the factory again and this time it was going to cost exactly a grand to fix. This didn't count all new tubes plus the cost of shipping. I suddenly just reached my limit. And an opportunity for selling it came the very day I got the repair estimate. A fellow on the West Coast, who had heard someone rave about my especially good "SP-10," was willing to pay me the entire amount I had in it including my original purchase price plus all the subsequent cost of repairs, tubes, and shipping. Moreover, he would be going through Minneapolis (where Audio Research Corporation is located) on business and he would pick it up after it was repaired. So it was a done deal. He got home, hooked it in, and was just

ecstatic. (For how long?) I felt a mix of sorrow and relief.

I then went through many preamps and phono preamps, none of them as good, but now I was doing more than tube-rolling. I was rolling components, which was less fun and a lot more expensive than rolling tubes.

Almost by happenstance (such is the perverse impulsiveness that goes along with being an audiophile), I became the owner of several pieces of McCormack gear. I had obtained a new DNA-0.5 "Deluxe" from a dealer who was going out of business, and I loved it. I bought a used DNA-1 "Deluxe" from a fellow who was slightly retarded, just to keep someone else from taking advantage of him. (Don't laugh. The fellow had an amazing ear, and he had switched to later-model McCormack units.) I had never owned better amps, so I experimented with preamps and was astonished to find that the McCormack ALD-1 "Deluxe" beat out about 50 others that I tried. Then, from a friend, a McCormack Micro Phono Drive came my way. This phono preamp, if not as warm and lush as the "SP-10," excelled in dynamics, had amazing control not only in the bass but also over the entire musical spectrum, and it was much more even and linear. In short, I had found a phono preamp which excelled the hallowed ARC "SP-

10'' Rev 7, and so the McCormack Micro Phono Drive became my phono preamp of choice.

A McCormack Micro Headphone Drive would soon be purchased, and it clearly gave the best headphone sound I had ever heard. Plus I loved its 3 different gain settings which allowed me to use very different headphones without having to own more than one headphone amp.

Meanwhile, there were better speakers, always better wire, a switch from the McCormack ALD-1 ``Deluxe'' to the equally good (though more linear, but with less bloom) McCormack Micro Line Drive preamp.

I felt like a rich man tallying his wealth every time I listened to music, looking at all that wonderful McCormack gear which gave me such good sound.

But could I be satisfied? Of course not. However, this time I didn't go looking for equipment of a different brand. Instead, learning that Steve McCormack (now with his new company, SMC Audio) was offering the option of significantly upgrading his old equipment, I decided to try that route. The results, putting it mildly, would be cornucopian.

First I upgraded my McCormack DAC. It was transmogrified into the SMC Audio Ultra DAC-1, and I would soon learn that this DAC, combined with a rebuilt

(and slightly upgraded) McCormack SST-1 transport, was the best-sounding CD player I had ever heard. A lengthy review of this component would be published on the website ``6moons.'' There would follow an upgrade of the Micro Line Drive, resulting in the best-sounding preamp I have ever heard. (Steve McCormack opined that this preamp sounded as good as the early iterations of his VRE-1 preamp, but was not quite in the same league as his latest preamp, the VRE-1C which I have not heard.) So while the Micro Headphone Drive and my two main amps (one for the satellites, one for the subs) await upgrades, I turned my avaricious attentions to the Micro Phono Drive.

To be blunt, I looked upon this potential upgrade as an expensive experiment. I write ``experiment'' because it is with phono preamps that I set the bar very, very high. I had been encountering some very good phono preamps, was even being mightily tempted in several directions, and as much as I respected Steve McCormack's genius as an audio engineer, I simply did not think he would be able to produce a superlative phono preamp. I thought it would be good. I hoped it would at least nudge close to the league of the (almost unaffordable) best, and I hoped that I could live with it happily (at least for a few years). So off the Micro

Phono Drive went. While this MPD was at the SMC Audio sanctum, I would not avoid tantalizing myself with other phono preamps. Some commentary is in order here.

What I discovered a long time ago is that, with phono preamps, you can get a whole lot without spending very much. I would even say, to this day, that the old Radio Shack twenty-dollar phono preamp I had was a decent piece of gear. Definitely not high-end, but something I could live with for a couple of months.

If getting good sound from a phono preamp is easy, getting great sound is extremely difficult. Prices, reviews, and hype all tend to be misleading. Maybe because of that ``SP-10,`` I have made it a point to hear every phono preamp, or preamp with an onboard phono stage, ever made by ARC. Most of them are very good, a few are very bad, but the progression in quality with successive models has definitely been uneven. At long last it would happen that I thought the ``PH3`` was a phono preamp that bested the phono stage of the ``SP-10,`` though not by much. The ``PH4`` was not as good as the ``PH3`` since the ``PH4`` never even existed. And the ``PH5`` was slightly better than the ``PH3.`` Other models quickly followed, and soon came the awe-inspiring ``Ph8.`` In fact (and here I make a claim that will cause the heathen to howl) I do not

think ARC has made a phono preamp since, no matter how much you spend, which matches the sound of the ``PH8.'' Tube choices count, to be sure, but I have heard so many of these ``PH8'' phono preamps, and have heard the tubes rolled in particular units so many times, I begin to think I am in a Holy Roller Temple. And I do trust my ears: The ``PH8'' is ARC's best phono preamp. If later models of the ARC phono preamps have more features, are bigger, and look more classy, they do not sound as good as the ``PH8.''

There were tube phono preamps in other brands which clearly bested the ARC ``PH8,'' even 3 different slightly upgraded Jolida units I heard. I could recount many other experiences with brands and models here, some dismal, some wonderful, but I shall mention only three more: The Herron Audio VTPH-2 has massive dynamics, a gorgeous and pure tone, and a presentation so rich one can only describe it as luxurious. It bests any ARC phono preamp made to this date, and makes many of the ultra high-end phono preamps out there sound like toys. Then there is the Balanced Audio Technology ``VK-P12SE SuperPak'' which, though not at all modestly priced, gave me sound such as I had never heard. In fact, this unit tempted me back in the direction of tubes, and I kept thinking that surely, if I would show

a little more fortitude, then I could live happily ever after with tubes. But always, always I would be caught up short by the sure knowledge that those tubes would not live happily ever after with me.

And then (oh lordy let me go to my knees!) I spent an evening with what had been recommended to me as the best phono preamp in the world: a Shindo "Auriegas" phono preamplifier. A generous and enthusiastic host in Kansas City allowed me to spend an evening listening to his Shindo phono preamp in a stellar system, and I was just stunned. This indeed was the best phono preamp I had ever heard, and I was willing to put all reservations about tubes aside and overcome, once and for all, my long-standing reluctance about replacing and rolling tubes. Such great sound would be worth this small sacrifice.

Incurring spousal impatience, and risking familial ire, I went to this fellow's place the next night, and after about 10 minutes of listening, as I was sitting there with my eyes closed, the room lit up very bright and the sound went dead. A tube in the phono preamp had burned out. My host didn't have a replacement, but to my surprise, he wasn't at all glum about this tube failure as I would have been. Instead, he was feeling

quite enthusiastic, because now he would try the such-and-such tube which he had been keen on buying.

That was a cold dose of reality. Here was the best phono preamp I had ever heard, but now it was dead, and there would be impatient waiting for a replacement tube. (And maybe a repair job to address what made the tube fail, or to fix any damage done when the tube did fail.) All new-found tolerance for tubes, and any lust for a Shindo phono preamp, went out the window. Yes; it was definitely the best-sounding phono preamp I had ever heard, until it couldn't make any sound at all.

All this time I had been listening to solid-state phono preamps too, learning very quickly that the reviewers were more practiced at raving and braying than they were good at listening. As for the Manley ``Steelhead''? It is aptly named since what it gives is a blast of macho dynamics as hard as steel. As for the best of Basis? Or Avid? Good boat anchors. Any PS Audio, whatever the year or model? Take me to the nearest vomitorium, and hope it isn't already occupied by an owner. Pro-Ject? They keep trying, but they still are barely beyond entry-level high-end. Oracle had a nice-sounding one for a little under two grand called the Paris PH200 which was much better than most of the competition in that price range. The little Dynavector

``P75 mk3,`` for less than a grand, is what one would call a giant-killer. It has the drawback of evincing a very slightly processed sound, but still, I would take it over most of the competition. I had always been fond of the Plinius ``M14`` which dates from many years back, and in the solid-state field this phono preamp has always been, and is, a hard one to beat. As to what is new—or relatively new—the Graham Slee ``Reflex M`` with ``Elevator EXP`` (and the better external power supply!) does everything right. If it lacks the last bit of magic one expects from the very best, I felt this could perhaps be cured by an even better EPS. In fact I seriously considered getting this phono drive and having a better EPS made for it.

But meanwhile, amidst all this listening (Dare one call it ``shopping``?), I had encountered a dilemma. I had heard two Sutherland phono preamps which I thought were just stunning. I could have lived in ecstasy with either one and yet they were totally different from each other. I had heard that huge unit called the ``PhD.`` (Try lugging that 38-pound monolith—17'' by 14'' by 4&1/2''—with its 16 Alkaline D-cell batteries to your vacation cabin in the woods. Or figure out how you can fit it on your existing equipment rack so you don't have to use an extra rack just for holding this

phono preamp. Yes; I do realize that the dimensions aren't all that big compared to many other components, but this big, for just a phono preamp?!)

The Sutherland ``PhD'' gave me something I had never heard in a phono preamp. Not even in the Shindo. It presented an image so holographic it floated in front of me, it shimmered, it moved like an ethereal angel, it made even performers I normally wouldn't listen to sound empyrean. Here was the most unique phono preamp I had ever heard. I listened for several hours before I could even begin to listen critically. And then I could find only one thing wrong: It did not have what I call linearity, i.e., the same tonal, dynamic, and image presentation in all parts of the musical spectrum. The bass was slightly uneven in dynamics, the alto voices were not as forceful as the soprano range was, the location of orchestral instruments, if overwhelmingly omnipresent, lacked precision. But with a presentation so gorgeously holographic, these criticisms were mild. They would remain mild even when I heard the Sutherland ``20/20.''

The ``20/20'' was the most linear phono preamp I had ever heard. The music it presented was always garbed in a beauty which, if not as voluptuous as what the ``PhD'' bestowed, was both lithe and vigorous and

uncannily precise. Here was what I could call a true linear presentation. Other people, like George Cardas, call this way of presenting music "the studio monitor sound." Was this the perfect phono preamp? Not quite. It did not have that lush holographic beauty of the "PhD." Also, it had a slight difficulty with sudden or loud dynamics. This happened rarely, but once you noticed it, your ear locked onto it every time it happened. I wondered then, and still tend to believe, that the problem is with the external power supply. This phono preamp's EPS was (to use a word I generally eschew because it is insufferably vague, and also because I just plain don't like the way it sounds) cheesy. Yes; even though there were two of them since this phono preamp boasts being dual-mono, that pair of EPS modules looked cheap, cheesy, wimpy. Not to mention anemic, old, and ugly. The two cords have a "decayed black" color that makes them look like something rescued from the trashcan at a Best Buy store. Inside the main unit, however, there is eye-candy. It bristles with an army of power supply capacitors which, I am sure, Ron Sutherland believed would store and filter all the energy that might be needed while that pair of EPS transformers would feed the capacitors a constant trickle to keep them at full power. This, I am

guessing, was the theory he believed would work in this design. However, when power was really needed, it always seemed to ebb slightly. The salesman showing me the unit even phoned the factory, and was told that those two EPS modules were the same that are used on a certain laptop computer! Regardless, I felt that this phono preamp, despite its obvious merits, needed a better EPS just as the Graham Slee did.

Now I was experiencing a conundrum. Of all the solid-state phono preamps I had heard, the two Sutherland's were the best, but they were entirely different from one another. How would it be possible to get the best of both into one phono preamp, when this synthesis would, in effect, involve conjoining two qualities which seemed quite opposed to one another? How could I get that holographic, floating image of the "PhD" alongside the stationary, fixed, precise image of the "20/20"?

Of these two supreme solid-state phono preamps, if I had bought one it would have been the "20/20." In my work (writing liner notes for classical CDs) accuracy is of utmost importance, and the linear (if slightly tentative) precision of the "20/20," for my needs, took precedence over the holographic embrace of the "PhD."

Realizing how seemingly impossible it would be to achieve a synthesis between these two phono preamps caused me to decide that, well, if I can't have the best of both worlds, then I will have neither. Perhaps it was paradoxical, but thinking this made it easier for me to accept the fact that when my McCormack MPD came back fully upgraded to an SMC Audio Ultra MPD, if it failed to give me everything those two phono preamps bestowed, I could more easily live with an SMC Audio unit since I was convinced that a synthesis of the qualities in the "PhD" and the "20/20" couldn't be had in any phono preamp, even in the Shindo which, given the virtual perfection of its every textured nuance, was vastly superior to both of those Sutherland models.

Yes; I could be happy with what I thought would be a lesser phono preamp because it would still be very good, it would not tantalize me with reminders of a synthesis that simply could not be achieved, and it would never mock me with the wearisome demands of a tube unit. And shame on me, but despite all my loyalty to Steve McCormack, and the fact that I owned so much of his gear, I did think that what he would send me would be inferior—even if only slightly inferior—to the best I had heard.

For one thing, it didn't seem that analogue had been Steve McCormack's focus over the last few years. Plus I had a considerably better turntable, arm, and cartridge than he used. (Don't ask; I'll simply say something that includes the word, ``Rolls-Royce.'')

Plus there was some degree of natural skepticism. No audio engineer succeeds in being superlative all the time. So I had to prepare myself, not for disappointment, but for grateful resignation. I would listen and say to myself that, yes, here is a phono preamp vastly better than most of the others, but not quite among the best of the best.

But soon I would be immersed in a process of discovery initiated by SMC Audio which was so meticulous it surprised me. Steve McCormack wanted to build not just a phono preamp, he needed to know the capacitance of my tonearm cable, and directed me to where I could purchase a very good capacitance meter for less than thirty bucks. (And to think that 25 years ago you had to pay several hundred dollars to get a decent one!) There was discussion of the output level of my preferred cartridges, both the low-output ones and the high-output ones, since this unit would have both a high-gain (+60dB) for low-output moving coil cartridges and a low-gain (+40dB) for moving magnet,

moving iron, or high-output moving coil cartridges. SMC Audio even wanted to know the length and the metal in my tonearm cable; knowing the capacitance wasn't quite enough. And they asked many questions about my preferences regarding width of soundstage, height of imaging, and by the end of this process of discovery I felt almost like I and my analogue gear had been examined by an internal medicine specialist.

So while SMC Audio was waving its magic wands at the factory, I kept auditioning other phono stages, and amidst this exercise my thoughts often went back to Katie. I hadn't succeeded with taping her volley of sibilants for the sake of testing detail without brightness, or her lascivious moans for testing lower midrange. But that was probably for the best. About 15 years before this trial upgrade of the McCormack Micro Phono Drive, having neglected reel-to-reel for a couple of years, I brought out my big machine. It seemed to be working fine, and I put on a tape that had been recorded right about the time I was dating Katie. The tape started to roll, and then it just fell apart. It didn't jam. It didn't break. It just seemed to disintegrate, right there on the reel, into a fast-decomposing alien material that dropped particles like confetti. I had to sweep up the particles with a vacuum

sweeper, and then I actually sucked the remaining conglomerate off the reel.

After a thorough cleaning job, I put on some commercial tapes of more recent vintage, and after only a few minutes the tape started breaking. A close inspection showed that one of the heads had worn clear through even though there were fewer than 200 hours on these heads. (I kept a note card inside the machine's case, keeping a count of playback or record hours.) The sharp edges on that worn-out head were what was causing the tape to break. A few days later I took the machine in for repair, was told that the new head would cost \$275 (not counting labor for installation), and I should get the other head replaced too, plus the machine was due for a complete cleaning and overhaul. All this would cost about \$900.

I thought about all those tapes I had which were old, fragile, many suffering from bleed-through, some of them maybe about to disintegrate like that first tape I had put on, and suddenly I just gave up. I gave the repairman the tape recorder, gave all my commercial reel-to-reel tapes to Goodwill, and discarded the others. I felt a twinge of regret for a couple of days and since then have never looked back. It was too fragile a medium for me to want to fool with anymore.

LP analogue had become so good, and tapes had always been so fragile and high-maintenance, it was time to be done with them. So I no longer regretted not getting that tape of Katie. And I didn't really need it now anyway. For lower midrange tonality I could depend on excellent recordings I now possessed of Marilyn Horne, Cecilia Gasdia, and (perhaps best of all) Kathleen Ferrier. For sibilants, I had chanced upon an LP by, of all people, Ricky Skaggs. Called Don't Cheat in Our Hometown, that LP's final track is a recording of the gospel standard, "Children Go." That track is replete with sibilants, and in fact I have never found any cartridge that can quite track it on every syllable. I bought the CD (a decent approximation of the LP in sound quality) so I could hear all those sibilants. I heard them, but still, I would like to hear how much better they surely sound on LP, if only I could find a cartridge that will track this challenging song.

When my unit came back from SMC Audio, initial visual inspection would suggest that there wasn't much that had been changed. The unit has a small gray chassis that looks just like the old McCormack Micro Phono Drive except now it has the SMC Audio decal on it. On the back, one notices high-quality gold-plated WBT "nextgen" female RCA's. The real visual

difference is in the external power supply. It is in a handsome gray box with its color matching the MPD. There is a Furutech FI-03(R) IEC inlet with a Furutech fuse. Inside this box, along with other exotic circuit jewels, is a Plitron transformer. Plus the circuitry of this EPS is somewhat unusual: With the original McCormack MPD, its more humble EPS delivered AC voltage directly to the actual Micro unit. The conversion to DC was then done inside the Micro unit. In the upgraded SMc Audio Ultra MPD, the circuit to convert the AC to DC is inside the EPS so as to accomplish a higher quality conversion from AC to DC. In fact there is a pre-regulator stage in this EPS, so that what is being fed to the phono unit is balanced, regulated DC power at 24 volts. The umbilical from the EPS to the unit itself looks quite impressive. About 3/4'' in diameter, it uses the proprietary cable technology developed by Stealth Audio Cables—the company run by Serguei Timachev. This cable has a construction made up of carbon-molybdenum hybrid conductors which utilize a paravacuum design incorporating helium to provide a great part of the cable's dielectric. Special runs, with locking terminations, were developed for SMc Audio in order to make an ultra high-quality connection between the EPS and the phono drive.

Set-up was simple. Make sure the gain is set correctly, plug in the input and the output, attach ground, attach the umbilical between the power supply and the phono drive, then plug in a good power cord. (And pause to admire how the new cover plate looks. The unit is shipped with the old steel plate affixed for protection. You simply remove its 6 screws, take it off, and put the carbon-fiber plate on. This exercise takes maybe 3 minutes.) The reason the carbon-fiber plate replaces the steel plate is because the carbon-fiber, suspended in a polymer matrix, coheres into a material having electrical characteristics causing it to behave with desirable mechanical and dielectrical properties that benignly eschew interaction with unwanted electrical fields.

Now you can heave a sigh as you tally the cost, which as of mid-2014 was about \$3,500 not counting the cost of the original McCormack MPD. Then fire up your system and give it at least an hour to warm up. Admire the comely glow of that blue LED on the front of the MPD. Admire the simple, yet sturdy and aesthetic, lines of the unit. Look down at your hands and feel alarmed! They are trembling! After such an investment of time, money, and carefully measured hope, you are scared to death that you are going to be acutely disappointed, or

that something will blow up, or (what is worst) something subtle will seem awry and you won't quite be able to define what it is.

Knowing that SMC Audio gear requires considerable warm-up before it reaches its best, I decided to begin with an LP I would be relatively unfamiliar with. I would start with Soulful by Dionne Warwick, which I had heard only once before, and that had been about 10 years ago. The needle (well, the tip of the stylus) settled in to a groove, I adjusted the volume, and sat down.

I am not exaggerating: Within 3 seconds there were chills all over my body. Within 30 seconds (I don't want to seem overly maudlin) there were tears in my eyes. This was—is—the best-sounding phono preamp I have ever heard. It was combining the holographic imaging of the Sutherland ``PhD,`` the linear accuracy of the Sutherland ``20/20,`` and the glorious (one might even say patrician) empyrean plenitude of the Shindo. The SMC Audio phono stage combines the merits of all these phono preamps, and in truth, it entirely eclipses them!

A clamoring question immediately came to mind. I had been quite sure that there could be no melding of that holographic imaging of the Sutherland ``PhD`` and

the linearity of the Sutherland "20/20." It seemed, fundamentally, that the two qualities were diametrically opposed. How can the temporal presentation of a piece of music float freely before you, and at the same time be ruler-flat in reflecting what the microphones recorded? How can a musical image float and hover and at the same time be fixed and precise? It can't. Or so I had thought.

And yet I was saturated with a full awareness that now these two qualities were not at all opposed. The empirical evidence—my listening—was telling me this. That luscious hologram of music presented by the Sutherland "PhD" was not floating there in front of me like an ethereal, wavering ghost. Rather, it was indeed holographic, i.e., fully three-dimensional, freely suspended in space, and yet it was as precisely fixed in position (when it was supposed to be affixed) as the center of a saint's soul. I listened to (almost saw) that three-dimensional image, which was so thoroughly solid it almost seemed hylomorphic. And instantaneously there came to mind that beautiful Latin sentence attributed to Alanus ab Insulis (which actually dates back to Hermes Trismegistus), "Deus est sphaera intelligibilis, cuius centrum est ubique, et circumferentia nusquam." ("God is an intelligible

sphere, whose center is everywhere, and whose circumference is nowhere.'')

Put in other (and plainer) words: I realized that the apparent opposition of the two Sutherland phono preamps was not caused by an incompatibility in the primary qualities of each unit, but because of subtle lackings in their otherwise estimable primary qualities. The holographic imaging of the "PhD" would at times move too much, hovering and waving about like a gossamer cloud, and while this caused one to immediately note how free-floating and real that holographic image was, one did not realize, until hearing the SMc Audio phono stage, that the holographic presentation of the "PhD" was too untethered. It floated and danced in front of you beautifully, but sometimes it swayed and even seemed to bounce when it shouldn't. With the "20/20" the image was not so holographic, but it was linear, even though at times it lacked strength in dynamics.

With the SMc Audio phono preamp, all the seemingly opposed qualities now came together. What I had thought were fundamentally irreconcilable differences became a fertile synthesis. The holographic image is there, fixed in space: everywhere you hear it (or even feel you are looking at it) you perceive an immutable center

even as there is no limit to this holographic image's ability to either expand or contract when the music expands or diminishes. At the same time there is not a hint of departure from linearity. (A linearity that invites the adjective "perfect.") And there never is a trace of congestion or limitation in dynamic presentation. The SMC Audio Ultra Micro Phono Drive has it all.

Never one to rest easy ("Oh ye of little faith!") I immediately entertained a suspicion. With all my other McCormack, or the later SMC Audio, gear I had always noted that any initial listening tended to produce disappointing results, and only with considerable break-in would the magic come forth. In fact, I had come to refer to what I called "the inverse rule," not only with Steve McCormack's gear but also with other brands: namely, if it sounds perfect at the beginning, then you aren't getting all this unit should be able to give. In fact it will very likely start sounding worse as it breaks in. But a really good piece of gear just keeps on getting better and better. However, here I was getting everything—right at the beginning. Surely this meant something was wrong.

Well, nothing was wrong, because as it turned out I wasn't getting everything at the beginning. As gloriously perfect as this unit sounded when I first heard it, there would be exponential leaps into higher echelons of quality. It occurred to me that I hadn't even experimented with installing the loading capacitors. The unit had come with factory-installed 47kohm resistive loading for the standard RIAA curve. But the customer then can experiment with finding the optimal loading for cartridge and cable by plugging different-value capacitors (one per channel) into easily accessible sockets.

My capacitance meter had indicated that my phono cable, from cartridge leads to the RCA's that plug into the phono preamp, had a capacitance of almost exactly 100 picofarads in each channel, so there was supplied a pair of 100-picofarad capacitors for achieving the appropriate loading for my tonearm cable. But there also was supplied a pair of 220-picofarad capacitors for experimenting. So I experimented. This is done with relative ease—simply plugging the two "legs" of each capacitor in to the clearly marked sockets. (One must make sure they are pushed in snugly.) Yes; without any added capacitance on top of the supplied value of 47kohm resistance, the sound was ever so slightly

placid and mellow. Loaded with the added 220-picofarad capacitors, the sound became ever so slightly edgy or ragged on the highs. Loaded with the 100-picofarad capacitors, it felt like the music was moving through a translucent aperture.

There would be another improvement also. Sheer time—hours of break-in which any component deserves—caused me to hear (Why try to analyze?) music that sounded more and more beautiful. Celestially beautiful.

Also I know there will be further improvement simply from experimenting with and using better power cords. All McCormack and (to a lesser degree) SMC Audio gear leans slightly toward being bright. The good news is that this can always be remedied with the right power cord. An added bonus is that the right power cord does not need to be expensive. In fact, I have found two modestly-priced power cords which always—no exceptions, in any system, with McCormack or SMC Audio front-end components—tame any bright edge those front-end components might have. Plus they sound excellent. These are the Cardas "Quadlink" and the Acoustic Zen "Tsunami." You can do better, and eventually you probably will, but either one of these two excellent-sounding power cords is always a predictably safe place to start. I have begun with the Acoustic Zen

``Tsunami,`` and have a feeling that the next step will be a Cardas ``Golden Cross.`` And then

I am glad to report that during the entire time of this early listening, the SMC Audio phono preamp gave a commendable accounting of itself in what I personally consider the acid test of good analogue playback equipment. For this, I do not use what most people call ``demonstration`` LPs. Of course demonstration LPs are wonderful for inspired listening, and also for impressing your friends. But there is another route for measuring the worth of an analogue component. This I call playing ``retrieval`` LPs. I have found that an analogue component—whether it be phono preamp, wire, arm, or cartridge—can best be judged by playing LPs that are worn, were poorly recorded to begin with, or were poorly pressed. For example, you might be trying out two different phono preamps, and discover that even though they have a slightly different ``signature`` sound, they nevertheless seem pretty much equal in quality. But then you put on one of those old Vox LPs recorded back in the '50s or '60s. Their musicians were always world-class, the engineering was impeccable, but the price was cheap and so were the pressings. You listen, you sense that there is much wonderful music in that LP, but you have difficulty hearing all that

music. You realize you are, essentially, deciphering it at times and at other times almost inferring it.

With this kind of LP you can, for example, compare two phono preamps you before had thought were just about equal. But now you may discover that one makes the LP sound just like you always heard it before, but the other reaches down into those grooves and pulls out musical riches you always knew had to be there but somehow you never got to hear. This ``retrieval'' LP thus provides a better comparison between the two phono preamps' capabilities than a ``demonstration'' LP could, i.e., both phono preamps sound equally good on discs that are well made, but one sounds clearly better when it comes to succeeding with a difficult disc. I have probably 200 such LPs on labels as diverse as Vox and Mercury, Saraphim and Syrichord, and none of these are ``demonstration'' discs although they all contain beautiful music that is difficult to retrieve. I am happy to report that with this new phono preamp I am hearing music on these ``retrieval'' LPs that I have never before heard. One realizes why many people claim that Walter Klien was the best pianist of the 20th century. One discerns how good Ingrid Haebler truly was. You get to hear how good the early Kathleen Battle was. (As the Vox recording engineer, Marc Aubort of

Swiss birth once said to me, ``Back when she was a reeyal poosy-cat! Before she became a beeech!'')

Yes; here is one more reason for being grateful that I now own this SMc Audio Ultra Micro Phono Drive. It doesn't just show off great music that is easily accessible. It also retrieves music that otherwise would be forever inaccessible.

And this is one more reason I can pontificate unequivocally: I haven't heard them all, so I can not claim omniscience or infallibility on this topic, but from what I have heard (and I have heard a great deal): The SMc Audio Ultra Micro Phono Drive is the best phono preamp in the world. It not only bests those worthy of being called competitors, it entirely eclipses them. It is the crème de la crème, the non plus ultra, or (to paraphrase Saint Anselm's ontological proof) the phono preamp greater than which no phono preamp can be conceived.

However, I must admit that, at this point, my enthusiasm encroaches upon the truth. As I have stated many times, Steve McCormack is never not doing research and development. What this means, I am sure, is that any subsequent SMc Audio Ultra Micro Phono Drive units will be slightly better than mine. I suspect I will actually feel a twinge of jealousy.

Meanwhile, I listen to my black software with an admixture of musical bliss and mindful gratitude. My gratitude has several foci. Most immediately it goes to Steve McCormack, for once again achieving inimitable pre-eminence in an audio component. But I also feel gratitude toward all those composers, musicians, and recording engineers who presented to the world a plenitude of musical riches my ears can enjoy via this ultra phono drive.

And (lest we forget) I even feel gratitude toward Katie. Utilizing a method which was wonderfully unique, she presented to me a bounteous bouquet of exotic sounds which inclined the analytic part of my audiophilic musings toward very high ideals.

I had talked about these standards (never mentioning Katie) with Steve McCormack many times. He knew how difficult it would be to impress me mightily and to satisfy my uncompromising standards. So thus I am grateful to him, glad that I am unstinting in my quest for supremacy in sound reproduction, and grateful that (however indirectly, and albeit from long ago) Katie helped me understand, later articulate, and eventually reap the benefits of those standards.

Allow me to be so utterly candid about the corporeal realm that, paradoxically, I can not but be

chaste: As I before noted, one of the times Katie did not stutter was when she was in the midst of carnal abandon. Afterwards, as that apex ebbed (during what one might call the "afterglow") Katie's stutter would quickly return. But that lovely self-confidence (or, if you prefer, self-esteem) of hers never waned. Often she would lie there in the dark and, not in a whisper, but rather, in a very soft voice, she would stutter, "Pretty Katie," or, more often (and with even more difficulty) she would say, "Beautiful Katie." In these words there was not a trace of vanity. She seemed to feel a true and grateful quietude. As if this were a way of reminding herself—declaring to herself—that she possessed true worth as a beautiful human being despite her obvious, and unusually extreme, vocal handicap. There was something soft and wondrous in the serenity of her bliss. Something spiritual. Even mystical. These were the times I thought she was truly precious.

I loved hearing these words of hers—just knowing she felt so much at peace with herself she would want to stutter out such difficult words. It didn't matter that it took her a long time just to get those two words out. It required patience on my part. It required many sibilants on her part. But it gave me opportunity

for learning a valuable lesson: When the sibilants are a plenitude like Katie's were, along with all their serene and even mystical dimension, they also are rich material for audio musing.

Perverse and nerdy and even exploitative as it might seem, I feel almost devotional in vouchsafing that Katie's command of the lower midrange, and the self-confident results of her vocal handicap, helped me become a better audiophile. And over the course of a long, circuitous route that has taken me many decades, I now realize that Katie not only helped me become a better audiophile, she also helped me become a more demanding (perhaps, for a certain audio engineer, even a more inspiring) customer. In the end (the unending end!) I have become the owner of supreme audio equipment.

My first encounters with the SMC Audio Ultra Micro Phono Drive caused me to feel like I had gone to heaven. Now, as this phono preamp has broken in and has gotten even better, it feels like heaven has come down to earth and is settled in to my listening room.

How many mortal years do I yet have for this happy conjoining of hubris and joy? Not enough.

I am scarcely being morbid—I am only being optimistic—in hoping that when I die I am fortunate

enough (worthy enough) to go to heaven. However, since the idea of spending all of eternity trying to play the harp with all those other amateur harpists doesn't exactly appeal to me, I hope I can take my stereo and my music with me. (Let's see. That's about 10,000 LPs, 3,000 CDs, and 2,000 78s. Plus the weight of my stereo, which I suspect is close to a thousand pounds by itself. Can heaven's flooring support all that weight?)

Once I am sequestered in heaven, and have enjoyed my listening room for a few hours, I think I should go looking for Katie. She would deserve my thanks for those vocal gifts she gave me.

But the fact is, I doubt I would have opportunity for thanking her. Instead, I suspect she would be using up a significant portion of eternity, getting out an even more elaborate, ornate, and superlatively comestibular rococo rendering of those words necessary for ordering her favorite indulgence: "I want two supreme scoops of perfect papaya ice cream with pure pink sprinkles all superbly placed in a completely recyclable paper cup. Please be sure to put it in a paper cup. Don't substitute a pitifully cheap plastic cup."

So, just as happened before when we went our separate ways, we would continue to maintain our

independence, sequestering ourselves with our preferred corporeal bliss. Hers gustatory: papaya ice cream. Mine aural: music played with SMC Audio gear. Both of us divinely happy with our preferred repository of synaesthetic beatitude.

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