

# LISTENING TEST - BEOGRAM CARTRIDGES

BEOGRAM 4000 - BEOLAB 5000 - DYNAUDIO FOCUS 140

Soundproof - Beoworld



# A vintage listening experience!

## **What I heard, may not be what you would hear!**

I'd like to start off with a caveat. The following is based upon my personal listening experiences, over a period of time, in my listening room and at my leisure. In other words, a very subjective experience and report. I've tried to be as precise and fair as possible when comparing different playback-chains, and I have double-checked for integrity throughout in order to give each component under review as fair a showing as possible.

## **Set-up**

As you can see from the photograph, I have a vintage set-up with a few modern components. For the review, I moved the chair into the listening position and placed the tables on either side, to avoid any reflections from them. The carpet absorbs reflections from the floor, and the ceiling is too high to be a problem.

The centrepieces are my Beolab 5000 and Beomaster 5000, recently completely refurbished by Classic Audio in Denmark. The units have been calibrated to "as new" condition, with better spec's than the factory parameters they were originally manufactured to.

The Beolab 5000 amplifier is connected to a pair of Dynaudio Focus 140 speakers, considered my many to be an astonishing achievement by Dynaudio. The Beolab 5000 delivers ample power to the speakers, in spite of being rated at 2x60W - I think that's because of the unique design of the amplifier. If you have a look at the Beolab 5000 page over at BeoCentral.com, you'll find a more detailed description of why this amplifier performs as well as it does. I have a properly serviced and calibrated Beogram 4000 connected as one source; as well as a Grace m902 DAC relaying from my music server via an Airport Express (AE) unit from Apple. As the AE is limited to 16bit/44.1kHz when receiving music via wireless, I use an optical Toslink connection from my MacBook Pro to the DAC, for playback of high-resolution files.

## **The listener**

I'm 52. My ears are definitely not as acute as they were when I was in my late teens, but I've been fortunate. Hearing is across the range on both ears, and with equal balance. Sensitivity has dropped in the upper "mosquito-tone" range, but you'd be surprised to know how little musical information there is in that range in the first place. The absolute majority of the music we listen to (and that means 95 per cent plus) has been recorded with microphones that are sensitive up to 13,5-15 kHz. Which means that as long as your hearing is acceptable up to that level, you'll be getting your music's worth.

This reviewer loves music and goes to a lot of concerts. I'm particularly fond of acoustic music across a number of genres, both instrumental and vocal. I prefer my music straight up, delivered into a microphone with no effects and as little post-processing as possible.

Most of my listening takes place in my BeoLab 5 equipped listening room, but for the purposes of this test I used my vintage listening room, which is spacious and where I've spent some time setting up for best possible playback. This is the room I use when reading, and I'm quite accustomed to listening to music here.

## The Test Subjects

The purpose of the listening test is to judge whether there are any significant differences between the following cartridges, in the order in which I listened to them during the review.

1. SMMC20EN
2. MMC5000
3. SMMC20CL+

All are designed to be used with the kind of Beogram I own.

(1) and (3) are manufactured by Soundsmith, which is doing a fine job keeping our Beograms alive now that B&O no longer make neither turntables or cartridges.

(2) is a refurbished original B&O cartridge. The work of Axel Schürholz, who has a repair and retipping service for PUs and phonogram cartridges. (Schallplattennadeln.de).

All three were easily attached to my Beogram 4000, and played without any difficulty.

## The Music

Rather than listen to a lot of different kinds of music, I decided to keep things comparatively simple. Mostly based upon my personal experience from similar tests, as well as the experiences of others.

In those instances where people have managed to ascertain differences between components such as cables, choral music has turned out to be particularly revealing. For the purposes of the test, I got a pristine pressing of Linn Records' Händel's Messiah recording, with the Dunedin Consort. This is a multi-LP set, and I would therefore be able to play a "virgin" side with each cartridge, of the tracks I selected for the test. For the test to be fair, having pristine sides for each cartridge to give me a first impression is a good solution, and this then became a fair way of giving each the same reference material to shine from.

During my first listening session, I played a side with each cartridge, while taking notes. This session was to gain a general perception of the playback. The entire recording is with the same choir and musicians, in the same place, and done with the same method - which means that there aren't any significant differences to speak of between the record sides.

At a later session, I used all three cartridges on each of those sides, rotating them.

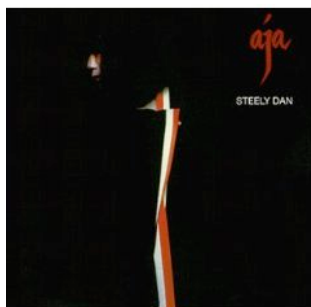
And then I did a sum-up session - saving the three remaining virgin sides for this. Again one play-through for a general perception, and then rotating the cartridges on selected tracks.

In addition, I chose an audiophile stalwarth: Steely Dan's Aja recording, in an audiophile grade pressing. This is music I've played to the point of abstraction, on a variety of playback chains - any significant differences from the components under review would quickly get my attention, as I'm very familiar with the music. It was used as a base reference and I'm not delving into the details of that listening session.

I'm a solid fan of Ahmad Jamal's music, and have a very good pressing of his Live at the Montreal Jazz Festival 1985 concert. I spent time listening to each of the cartridges, while relaxing and enjoying a nice bottle of wine, while Jamal and his crew did their best to get my foot tapping.



Linn Records - Händel's Messiah



Steely Dan - Aja



Ahmad Jamal - Live in Montreal, 1985

## My impressions

I listened over a substantial period of time, over several sessions.

Experience has taught me that we're incredibly good at adapting to various forms of music playback. For instance, how is it possible to go from listening to music on a pair of BeoLab 5s, in a dedicated listening room, and then listen to the same music in one's car, against a backdrop of traffic din, wheels against asphalt and the hum of the engine? That's because we're brilliant at adapting to listening environments - with our musical memory filling in the blanks when something is missing or amiss.

I'm also an audiophile skeptic. I'm not into cable mumbo jumbo, and find most of the audiophile prose in magazines and fora to be amusing, at best, and not very informative. We tend to exaggerate how well we remember the characteristics of playback components, and to draw extreme conclusions on the scantiest of evidence. Said evidence often proving lacking when we're subjected to a more controlled listening test.

And that's why I chose Händel's Messiah from Linn as one of the records to be used when evaluating these cartridges. This is an audiophile recording of extreme quality, which has been carried out in order to highlight the capabilities of Linn Records' production facilities. It's received a number of awards, and extravagant praise. In addition, you can purchase the work in a variety of formats - as the LP-set I bought, as a CD, and as a high-resolution 24bit/88.2kHz download. The latter format is advertised as "Studio Master" by Linn, and would provide me a benchmark against which to evaluate the cartridges. A unique advantage that was unavailable to reviewers during the years when gramophones were at the peak of their popularity.

I connected my MacBook Pro to my Grace M902 DAC (digital-to-analog-converter) using an s/pdif optical Toslink cable. The Grace m902 was connected to the TAPE IN on my BeoLab 5000.

I now had a way of first playing the cartridges against one another, each being given two pristine sides on the Messiah-set. Following that, I would play a selection of tracks with each cartridge - after which I would compare the preferred cartridge to the Studio Master 24-bit/88.2kHz downloads of the same tracks.

That's a set-up which I believe both allows for my own subjective judgment of quality, as well as providing a standard against which to measure my preferred performer among the three. I have both "Aja" and the Ahmad Jamal recording on CDs, but chose to concentrate on the chorus and orchestra recording from Linn. As mentioned earlier, when cable tests have been carried out, whatever significant differences have been perceived were usually revealed using such music. Its many layers and intricate structure, seems to create a very detailed and revealing backdrop for critical listening.

## Revived vs. Production

One last point. Soundsmith manufactures cartridges, while Axel Schürholz revives them. The difference is significant. What Soundsmith delivers, aims towards a repeatable standard of reproduction. In contrast, I'd dare the claim that you're more likely to experience variations with Axel Schürholz products, as his cartridges are "worn out" originals that have been resuscitated. It would be interesting to listen to a number of cartridges from his rehab clinic, in order to determine whether they all perform alike!

One Soundsmith cartridge, the SMMC20EN, reached me from BeoWorld together with the MMC5000 review sample. I had earlier bought the SMMC20CL+ direct from Soundsmith when I got my Beogram 4000. I chose to include the latter in the listening test. Based upon what I heard, and given what others have told me about Soundsmith's cartridges, I believe I can state that they have a sound signature. Whether that's the case for Axel Schürholz' cartridges I do not know as I've only listened to one, though as stated above I believe there could be some variation.

## Play music

Let me reveal right off the bat that the MMC5000 performed well.

About 90% of the music I listen to is acoustic, either recorded live, or made in a way that prevents much use of editing or post-production - in other words music for which one has fairly good real sound references. The MMC5000 opened up the door to this music in ways that had me impressed when it came to the Messiah-recording and all of its intricate details of voice and placement. The Ahmad Jamal recording, with its amazing first track, jumped straight into my living room and put a big smile on my face.

To begin with the latter. It has lots of details, the drums and piano are hard at work with both force and nuances, and it's a recording that can sound messy and unengaging in an unbalanced playback chain. Not so with the MMC5000 I was supplied. Instruments shone, their interplay never in doubt, the music surging at me - audiophile clichés such as fingerwork on the bass strings and the realistic sound of hands and fingers against percussion were all there. As was a solid sense of presence - as alive as this recording has ever sounded through this system.

The individual voices and sections in the chorus during "The Lord gave the word" and "How beautiful are the feet" from the Messiah, were likewise just as they should be, with a character that was very revealing, yet realistically detailed. The voices in the chorus stood out as individual people, as the various soli entered with their parts. I could clearly hear the song moving from one pair of lips to another, and found myself shifting my gaze accordingly.

Much of this is due to the excellent recording - but it was all well presented, with a wide soundstage that extended beyond the Dynaudio speakers, and where I could clearly sense the placement of singers and instruments - a very enjoyable experience, which was well balanced throughout. When the brightest voices hung notes high in the air, the sound never shimmered or wavered, it was just there without any risk of it cracking against a performance ceiling. Even the difficult timpani sections of "Hallelujah" came across with separation, and with a delightful weight to the accompaniment.

I had purchased the Soundsmith SMMC20CL+ and listened to that before I received the review cartridges. After calibrating my Beogram 4000, I declared myself satisfied with the 20CL+, though I kept switching between that and my previous cartridge, not quite at ease with the sound from the new one. Trusting that it was a question of the cartridge needing to be run in, I kept using it, though never leaving it permanently attached. When I received the review cartridges, I first listened to the SMMC20EN, and recognized the sound from my own 20CL+.

The two cartridges I have tried from Soundsmith are both very revealing and distinct - they present a detailed soundstage, and there's excellent placement of sources throughout. They resolve a surprising amount of detail, and seem to be unfazed in any difficult passage of music - these are responsive and quick styluses. For instance, they handled the timpani sections of "Hallelujah" better than the MMC5000, managing to phrase the thuds with better detail.

So why am I not enthusiastic about these cartridges?

The sound is too sharp, and to my ears bordering on strident. I write this with some trepidation, as Soundsmith is really going to bat keeping our turntables alive with fresh cartridges. But to my ears something's not as it should be. There's a

glassiness to the sound that becomes tiring after a period of listening - it's quite possible that this is not as noticeable with certain kinds of music, but if you're listening to an orchestra with an ample string section, as well as a chorus with lots of bright voices, it just gets too distinct.

For the tests, I left my bass and treble settings at neutral, and I did change the tone arm weight from one stylus to another - in fact doing what I could to ensure that each cartridge played to its best potential, as measured against my personal preference. For the Soundsmith cartridges, these efforts weren't enough to keep me engaged.

So what's up here? Peter Ledermann of Soundsmith has explained that when evaluating how to voice his cartridges, across the quality range, he consulted with several customers as to which sonic characteristic they preferred - and the feedback guided his decision to go for a more distinct sound, as compared to "a more relaxed, smoother" voicing. Why did his customers prefer the sharper version? I can only proffer a few guesses - one being that it's a sound that better approximates today's dominant medium - the CD - and that this could explain the preference; the other that Soundsmith could be doing to old LPs what Axel Schürholz is doing to old cartridges!

LPs, compared to CDs, degrade slightly with each subsequent playback - good turntables with excellent tonearms do less damage, but it's unavoidable - no matter how careful you are, you will be taking the edge off your records simply through playing them. And it's the top of the frequency range that goes first.

Therefore this theory: customers listening to their LPs through the sharper sounding cartridges heard their records come alive again, while the test cartridge with the "more relaxed, smoother sound" fell back in comparison.

This became very clear to me after I switched to the MMC5000, which to me delivers a more enjoyable and believable playback than do the SMMCs. Once I had listened to the MMC5000, I was dealing with two distinct sound signatures, and was not in doubt as to which I preferred.

Given that most of my records are well taken care of, most of them recent purchases and so clean that I rarely hear a speck of dust, the shimmer of the SMMCs took the sound "over the top" and made it too sharp, in some instances strident. The MMC5000 was simply a better pitched instrument, to my ears.

I know that Soundsmith is willing to produce cartridges to the "relaxed, smoother" specification, and would very much like to hear one of these. I was so confounded by the experience that I actually took my Beogram 4000 to a friend's place, where I played the music through another amplifier and different speakers, just to be certain that it wasn't my system that was at fault.

I would like the Soundsmith cartridges to have a richer mid-range, while holding back at the top register - in my system this would deliver a better playback.

I would love to have the option to choose between sharp and smooth voicing in future orders.

### **Up against the Studio Master**

I connected my MacBook Pro to the Grace m902 DAC and played the full resolution 24bit/88.2kHz files of selected tracks from Händel's Messiah. ("The Lord gave the word," "How beautiful are the feet," "Why do the Nations" and "Hallelujah.")

This was the first time I listened to this music, at this resolution, through my vintage system. I was very pleased with how the Beolab 5000 did its job. First the bad news - there was more detail in the bass than had been the case with either the MMC5000 and the SMMC cartridges. It was better resolved, with a greater distinction between each beat of the bass, whether from male voices or instruments. There are many reasons why this was so - and we shouldn't discount that my Beogram may be shirking its duties in the nether regions - but the more likely explanation is due to the better noise floor and greater headroom of 24bit/88.2kHz files.

The good news - the MMC5000 wasn't thrown out of the ring.

It's two different listening experiences - where I'm tempted to give an edge to the smoothness delivered by the MMC5000. I'm not a vinyl addict, and have long since adopted hard disk storage for my music listening. My vintage system is in my reading room, a perfect complement to the fine moments I spend in it. When I have visitors who wish to listen to my BeoLab 5s, we usually begin by listening to an LP through the Dynaudio speakers, followed by iTunes play-



back through the DAC to the Beolab 5000 to the same speakers. We then move into the dedicated listening room where the BeoLab 5s are placed.

The reaction I get from people is usually one of enjoyment at the LP system and playback, followed by surprise as we switch back and forth between the LP and CD, with some stating that “LPs still sound nice, don’t they?” We then move into the BeoLab 5 room, where the speakers totally outperform the Dynaudio Focus 140 speakers with the same CD-file - demonstrating what a full-range speaker will do for your music.

I have, of course, also experimented with analog playback through the BeoLab 5s, though I chose not to do so for this cartridge test. A while ago, I came across a pristine, unused set of music cassettes containing the Solti Wagner’s Ring as recorded by John Culshaw for Decca. The boxes with the cassettes from the late 70s were still inside their cellophane wrapping. I set up my Beocord 6500 for playback through the BL5s, and the assembled enthusiasts ended up preferring the voices from the tapes, compared to the 1997 CD-version (there have been different remasters.)

The same thing happened when I listened to the MMC5000 version of the Messiah compared to the high-resolution version - I ended up preferring the analog playback of voices from the LP over the voices from the high-resolution files. But the musical reproduction overall was truer across the board from the high-resolution files, with a greater balance from bottom to top, and more “detail in the details.” The needle in the MMC5000 simply couldn’t describe everything that the high-res file contained.

### **Curtains**

Am I any wiser? Are you, after reading this lengthy review?

I have two record players and am very pleased that LPs are becoming popular again. One of my worries is the quality of the cartridges for my Beogram 6500 and Beogram 4000. Having access to the services of Axel Schürholz and Peter Ledermann of Soundsmith takes the edge off that worry. I’m pretty clear in my preference as concerns the cartridges I tested, but there’s no definite guarantee that Axel Schürholz’ next cartridge will perform as well as the one I listened to - maybe it will do better or worse? In comparison, Soundsmith has a set voicing it works to, and delivers this voicing. As I mentioned above, I would clearly prefer being able to choose the “relaxed, smoother” version when I place my next order!

*(A final point. As Peter Ledermann has explained, the CL+ and SMMC1 cartridges “use very advanced stylus shapes, shapes not used on the original models. While these styli shapes can perform extremely well, they can also misbehave under certain circumstances, as well as show defects in recordings that other designs will not due to integration of the tracing information - a smoothing due to slower response.” This corresponds well with my experience, where I find that the CL+ had trouble with a few of my LPs, including a few audiophile pressings of recordings by the artist Kari Bremnes, while the 20EN cartridge navigated those records without any distortion in the sound.)*