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# An introduction to VAN MEDEVOORT

Reviewers: Marja & Henk

Sources: CEC TL5100, Audio Note tube DAC; Philips DVP 5500S SACD/DVD player

Preamp/integrated: TacT RCS 2.0 room control system, modified Audio Note Meishu with WE 300B (or AVVT, JJ, KR Audio 300B output tubes); Trends Audio TA-10; Qables iQube; RSA Predator

Speakers: Avantgarde Acoustic Duo Omega; Avantgarde Acoustic Solo in HT 2.0 setting; Audio Note AN/Jsp silver-wired; Podium Sound Podium 1 [on loan]; Duevel Planets [in for review]

Cables: Audio Note AN/Vx interconnects; Siltech Paris interconnects; Gizmo silver interconnect; Qunex 75 reference interconnect; Crystal Cable CrystalConnect Reference interconnect, CrystalDigit S/PDIF RCA/RCA and RCA/BNC, Y-cable, Crystal Cable Piccolo iPod to XLR, CrystalPower Reference AC-Eur/IEC CrystalSpeak Reference; Audio Note AN-L; Gizmo silver LS cable. Nanotec Golden Strada #79 nano 3; Nanotec Golden Strada #79; Nanotec Golden Strada #201 nano3; LessLoss DFPC

Power line conditioning: Omtec PowerControllers; PS Audio P1000

Equipment racks: Two double sets of Solid Tech Radius; Acoustic System amplifier shelf

Sundry accessories: IAR carbon CD damper; Boston Audio graphite CD damper, Denson demagnetizer CD; Furutech DeMag; Nanotec Nespa #1; Machina Dynamica Magic Box; TacT RCS calibrated microphone and software; Exact Audio Copy software; Compaq server w/Windows Server 2003 and XP; iPod; wood, brass and aluminum cones and pyramids; Xitel surround processor; Manley Skipjack; ASI TopLine; Boston Audio Design TuneBlocks

Room treatment: Extensive use of Acoustic System Resonators, Diffusers and Sugar Cubes; Gizmo's Harley Davidson cap

Room size: ca. 8.0 x 4.70m with open extension to a 2.20 x 2.40m A/V bay and open kitchen. Ceiling height is 2.50m, reinforced concrete walls of 45cm, reinforced concrete floors and roof of 30cm.

Room has on one side a large glass bay.

Discussed component retail: €1990/ea.



Today we report on our visit with Ad and his son Victor in their spacious Audioart Maarsse factory in Holland. Van Medevoort is Audioart's brand name for its line of consumer audio electronics, not surprising once you know that Ad Van Medevoort is both the designer and owner. With his parents operating a few musical instruments shops, Ad grew up amidst real instruments and though he was frequently found building radios from an early age on, it was the advent of the Hammond organ in his parents' shop that really lit Ad's fires. Henceforth fully into all technical aspects of music reproduction, he went through several schools and subsequent training to pursue knowledge in the field. Until 1985, Ad held jobs with various Dutch audio distributors and dealers where much of his time was spent upgrading equipment. With (in his view) simple adjustments or parts replacements for others sounding better, he learned how much could be gained from audio circuits in sound quality. Though it was April 1, that day in 1985 was very serious for Ad because he launched his own Audioart enterprise. The main reason for turning entrepreneur was an electrostatic speaker which he had developed during his spare time. In Ad's view only an electrostatic loudspeaker is capable of reproducing music in a natural way. The sound propagates on the line source principle and he believes that its speed and transparency in the mid and high-frequency ranges can never be matched by a dynamic transducer. Another big advantage is the absence of a crossover filter in the presence region. However, a full-range electrostat lacks speed and dynamics in the bass. Hence Audioart developed the vM EE/EB system which combined an electrostatic mid/treble panel with a sealed dynamic bass system. By mirroring the woofers in their sealed enclosure, Audioart addressed unwanted resonances and compression. Before launching the vM EE/EB system, Audioart had waited until their dealer network had grown to 50 strong. Then the vM CD 2.5 dynamic speaker arrived. Those were the days of hifi enthusiasm. Today, Audioart has some 30 dealers. That says more about the market than the company or its products. Large chains like the German Media Markt and Saturn franchises overwhelm the independent small shops with sheer mass and low-priced offerings. While Audioart aims at selling high-quality products with high quality sound at a decent price, rampant commercialism makes it hard to reach the average music lover. So Victor van Medevoort recently opened a web portal to accommodate the surfing generation.



Nonetheless, the need for real specialist audio retailers remains. To serve those who are dedicated to good products and service, Audioart has set up several listening rooms in their large production facility. Dealers may arrange a demo at the factory which not only shows off the quality of the products, the production process itself can be witnessed as well. The latter is rather integrated as all Audioart product sub assemblies are crafted in house whenever possible. Only wood and metal parts are sourced from specialty shops.

For now, back to the early days. Audioart had a fine hybrid loudspeaker but the market did not offer an affordable amplifier that matched the high quality Ad was after. This soon led to the introduction of the first Van Medevoort amplifier, the MA220 which due to its design was also able to drive many of the so-called difficult loudspeakers of the time. The success of these first products compelled Van Medevoort to design and produce a line of separate pre- and power amplifiers. The most salient detail is that most of these amplifiers produced between 1985 and 1995 are still up and running. To this day Audioart maintains a parts inventory for all products they have ever produced.

In 1995 Audioart expanded its product line to cover any part necessary to reproduce music in the home. Besides amplifiers and speaker, the Dutch factory began to produce CDPs, cables and accessories. Every 7 or so years hence, Audioart launched a new product line which consisted of advanced versions of previous iterations distinguished externally by more and more stylish enclosures. The current crop is the cosmetically most sober and well thought out, without unnecessary frills and only the vM logo on display. Even the SACD player remains wary of superlative but obnoxious alphabet-soup markings .



Speaking of SACD, the contacts Audioart had and continues with Philips led to active collaborations with getting the early SACD players of that brand to sound more musical. The many years of experience Ad and later his son Victor accrued while performing modifications and tweaking of their

own and other products have now paid off. In short, these men have amassed a unique knowledge of what might be called parts sound. By investigating the best-sounding parts in specific circuits, they learned a lot. Most designers are good at calculating circuit proficiency but sonically, things are still different. Audioart became a specialist of swapping crucial parts for their electrical equivalents which offer superior sonic performance.

This knowledge led to another pillar of the Van Medevoort emporium, AudioMart. That company, currently led by Victor van Medevoort, performs heavy modifications of optical disc players by Marantz, Philips, Sony, Luxman, Olive, Denon, Teac and CEC. These modifications go beyond just inserting a nice new clock generator but can be as extensive as changing out the mounting and damping of the drive and enclosure to eliminate mechanical resonances. Electrical modifications upgrade to quieter faster parts. Frequently voltage supply points are decoupled to eliminate crosstalk. Such modifications are all accompanied by a certificate and a warranty, the details of which depend on the modified machine.



But what else does a company into audio hardware require to complete the picture? Proper software. The software component of Audioart can be found in their professional recording arena activities. Under the umbrella of Audioart Recording Technology, Ad and Victor routinely hit the road with various orchestras and musicians like the Amsterdam Symphony Orchestra. Their performances are recorded with microphones, mike amplifiers and AD converters designed and built by Audioart. An additional spin-off is a series of professional amplifiers used for instance by Channel Classic Records in their recording studio. Yet another project resulted in a very sought-after guitar preamplifier with ECC83 tubes!

Ad van Medevoort's ultimate wish was for an amplifier that would sound the same no matter what – what the Americans call load-invariant. In his design he achieves that by biasing the output stage in dynamic class A which tracks the input signal and adapts accordingly. All other stages run in static bias class A. This insures thermal stability regardless of volume and the dynamic nature of class A operation is said to maintain a stable tonal balance throughout the frequency spectrum regardless of dynamic stress.



As full-blooded technology aficionados with a musical heart, the Audioart men don't merely pursue musical pleasure for today. They look ahead. Granted, it is very tempting to sit in their large listening room and forget everything else while contemplating a recording through the huge vM reference loudspeakers that combine electrostatic panels with 12 woofers per side. But there is an EU law -- power factor -- in the making that will go into effect by 2012 to render impossible the marketing of inefficient class A amplifiers. The legislators in Brussels have discovered a way whereby to ban such linear power supplies in favor of switch-mode variants together with Tungsten light bulbs and certain herbs and food supplements. In our discussion with Ad and Victor, we hit upon other questionable issues such as the CE directive that gave way to GSM and the fact that GSM telephones are exempted from RoHS compliance. To cut to the chase against this backdrop, Audioart has investigated and now implemented UcD for its new product line. The UcD class D technology was developed by Bruno Putzeys while working at Philips and claims for its implementation 10 times lower distortion combined with a very analog character. When mated to correct components and parts, a very musical amplifier can be built, exactly what Van Medevoort has pursued all his life. His first class D amplifiers outputting from 80 to 300 wpc are now available. NXP of Nijmegen Holland supplies the heart of UcD in the form of a stereo chip. Audioart uses two of these chips, each in a mono configuration. Incidentally, Audioart was already involved in the development of this chipset with NXP. Its class D switching frequency of 350kHz causes a lot of distortion if not properly filtered so

Audioart uses their library of component know-how to implement the best possible filter. Their solution -- which places the filter inside the feedback loop -- enables faster signal rise times and a more transparent sound.

On the question of what the future holds for audio, Ad's answer was clear: Performance 2-channel and home theater done right. The music video is already in shops everywhere. In Ad's opinion, it will always be accompanied by at least two music channels. When done right, an image can enhance the musical playback experience in the home. Again anticipating a trend, AudioMart has already modified its first BluRay player which they say resulted not only in a better picture -- the *raison d'être* for BluRay -- but remarkably better sound. After our conversation, we had a grand tour of the extensive premises where we saw the wood, metal and paint departments as well as the squeaky clean and spacious electronics assembly hall. The accompanying pictures in the later Sidebar will fill out that story.



We also had a sampling of Van Medevoort's CD350 and MA350 which are clad in the same modern though timeless guise of sheet metal and aluminum, with the mains switch in the lower left corner and the control buttons along the right side. When powered off, the understated looks don't clamor for attention. Powered on, the modest red illumination is simply helpful and far easier on the eye than the ubiquitous bright blue LEDs en vogue elsewhere. The current Medevoort aesthetic is elegant and modest dimensions of 43,4 x 39 x 10,2cm should be equally becoming in most environs.

The CD350 CDP has the disc tray located left of the display. When the 'open' button on either the unit itself or the remote control triggers the tray, it opens smoothly and quietly. Though all the usual but unnecessary logos are pleasantly missing, the CD350 is happy to play both CD and SACD as well as other CD-based derivatives but is strictly two-channel. The front further houses the six basic controls any such player uses. On the back things also are as basic as can be. Left you have the analog

RCA and two digital outputs (one optical Toslink, one RCA coax). Analog XLR outputs are optional. It's obvious that only CDs will show a signal on the digital outputs. When integrated into a vM system, the CD350's remote can be slaved to other components via the remote i/o ports.



Before playing with the CD350, we opened it to see what Van Medevoort has tucked inside. After the heavy steel cover came off, we discovered a Marantz platform. Audioart makes most everything in house but there are limits. Why not start off with a trusted base they have plenty of experience modifying? Audioart swaps the original clock for one much more stable to reduce jitter and reworks the power supply with among other components their signature diodes. When we closed the unit again, we took note that for what's inside, the unit is quite heavy thanks to its steel enclosure.



The stable mate MA350 integrated amplifier basically mirrors the fascia layout of the CDP with six input selector buttons and the attenuator knob. Input 1 accepts XLRs, inputs 2-6 RCAs. There are two outputs, a tape out, a pre-out, plus a main-in to facilitate power-amp only use which requires flicking an internal switch. The loudspeaker terminals are big enough to easily accommodate and hold down any type of spade, banana plug and of course bare wire. The MA350 also has the remote i/o slave ports of the CD350. It is noteworthy that Audioart labels each of their components with a red dot



indicating the 'hot' pin of the IEC inlet. This way correct power phase may be achieved if you know the hot wire in your power cord.

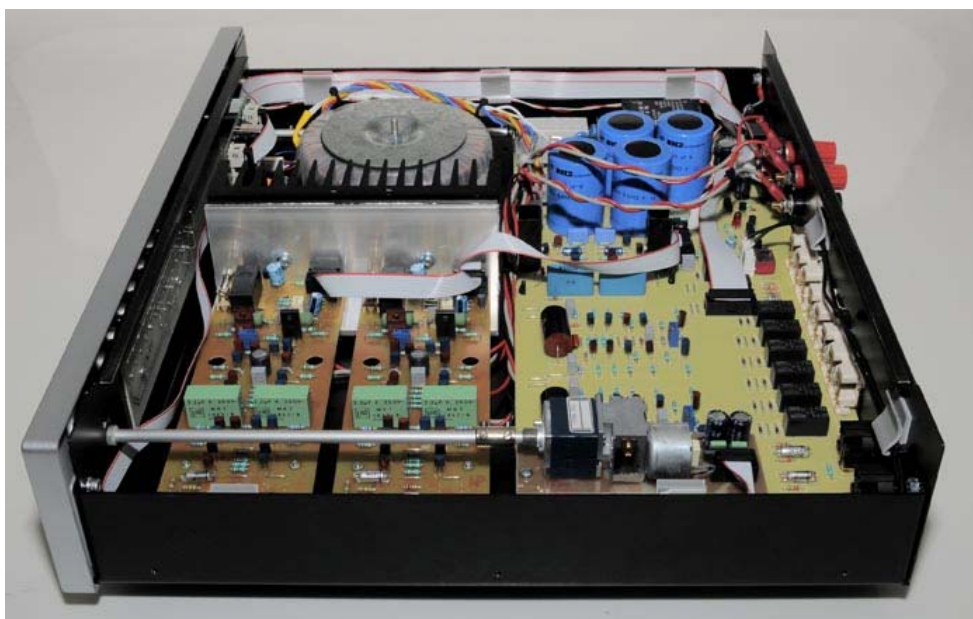


From the amplifiers specs one finds a nice input impedance of 50K without a voltage limit. With a 110-watt RMS output into 8 ohms, distortion is 0,003% and the damping factor hovers between 1200 and 1500. To go beyond specs, we opened the unit to right away conclude that Audioart indeed believes the power supply of an amplifier to be a crucial part. Almost one quarter of the available real estate is consumed by a toroidal transformer. Further power supply assistance comes from four well-dimensioned Vishay 4700  $\mu$ F capacitors. Another detail is the use of relays and sensors to render the amplifier idiot proof. This might explain the long life expectancy of vM products. In order to fight possible compression, Audioart -- like Krell -- follows the credo of a number of smaller transistors in certain of its amplifiers rather than fewer big ones.



We then connected the CDP and amplifier directly into the wall outlets with LessLoss Dynamic Filtering power cables and a set of ASI LiveLine interconnects. Ad van Medevoort had sent us some of their own cables but to minimize variables, we used only the ones mentioned. The owner's manual of the amplifier stated that a period of 30 minutes would be sufficient to reach optimal thermal stability between 35 and 45 degrees C so we respected this.

The amp's relay circuit carefully switches on all components not only at power on but also when switching inputs. A series of small clicks confirms this. While connected to our 107dB sensitive Avantgarde Duo Omega hornspeakers, the amplifier proved to not be completely quiet. With these extremely sensitive speakers, some residual hiss remained. Ad van Medevoort confirmed that to be a consequence of his circuit design but candidly, why hook a 110 wpc amp to speakers that will blow you away with single-digit output watts?



Connected to other resident speakers, the hiss was completely absent. To get in the mood, we kicked off our brief sampling with a Van Medevoort recording of the Amsterdam Symphony. One of the cuts was of a concert in a hall we know quite well. We played this not yet commercially available recording a few times over our reference system and then with the product of the man who made the recording and the player and amplifier. From the first notes it was clear what Audioart aims at, namely a rich and well-balanced sound with sufficient localization information. While particularly the low frequencies received a little extra attention in our system combination, that was not the case with the mids and highs to never get shouty or out of control. We then tracked the Al Andaluz Project Deus et Diabolus with members of the Spanish L'ham de Foc and German Estampie formations whose three female singers integrate medieval with Mediterranean and Oriental music. Their eerie voices and the full load of period and oriental string instruments was handled very well and never devolved into sounding sharp or nasty.

The subsequently played cooperation between Doug Cox and Salil Bhatt on Slide from Freedom features various guitars. The mohan veena is laid over the pulse of the table while a cold steel sound emanating from a resonator guitar spices up the melody like a drop of lime juice on an oyster. The tight jazz of the Avishai Cohen Trio's Gently Disturbed begged for some extra volume and the attenuator was remotely turned to the level where 'thinking in sound' took over. The amplifier wasn't fazed in the least and remained cool as advertised. We own just a handful of SACDs but those spun for pure enjoyment played back just fine.

We briefly considered combining the CDP with other amplifiers or the vM amplifier with other sources but decided not to as the point here was that these van Meedevoort components were designed as a set and should be sampled as such. The CD350 and MA350 combination in our opinion is a sound investment and for the asking price, one obtains not merely a hifi but musical combo that should also last for years and years. Our visit to the Maarssen plant of van Meedevoort was a very pleasant surprise of Dutch entrepreneurship in this age of off-shore outsourcing. Additionally, our initial impressions of their electronics are promising to encourage readers with vM dealers to arrange for an audition.

*Marja & Henk*

Quality of packing: Well packed in a sturdy cardboard box.

Reusability of packing: Reusable several times.

Quality of owner's manual: Simple but adequate.

Condition of component received: Flawless.

Website comments: Contains useful info.

Warranty: Two years parts & labor.

Human interactions: Professional, helpful and very friendly.

Pricing: Very reasonable

Van Meedevoort website : [www.vanmedevoort.com](http://www.vanmedevoort.com)