

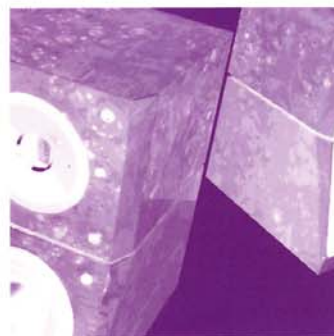
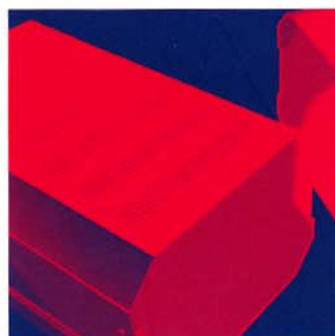
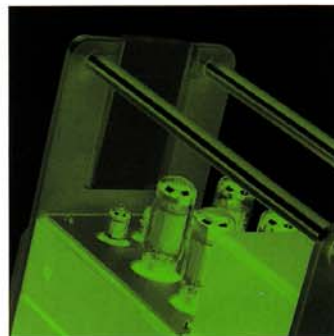
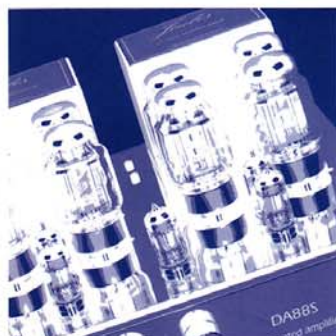
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Zanden
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The Zanden Audio Model 3000 Pre-amplifier and Model 9500 Mk.III Mono-blocs

by Roy Gregory

Zanden's Model 2000 Premium CD Transport and Model 5000 Mk. IV Signature D/A converter arrived in my audio universe like a bolt from the blue. Sure, I'd seen these beautifully crafted units at various shows, beautiful enough to instil nagging, covetous cravings; I'd even heard them sounding rather well at those shows, although which part of an unfamiliar system is delivering what is always a moot point. I'd marvelled at their exquisite construction and shrunk in the face of their frightening cost, but it wasn't until they arrived in the UK that I actually got to experience the full effect. That was when I got to take them home and experience them in familiar surroundings – and that was when they totally redefined my expectations of digital. For the first time the message was transcending the medium and for the first time digital replay was asking serious questions of my various record players.

Only one other product has ever had such a profound impact on my audio sensibilities and that was the Connoisseur 4.0, also hailing from Japan. The Zanden digital player immediately joined its compatriot on the top-rung of my existential ladder, as the single most impressive pieces of audio equipment I've ever had the pleasure of experiencing. But such epiphanies are not without their concerns. As a reviewer you worry about measuring the impact of

something that performs so far beyond the limits of your normal yard-stick. So it was reassuring (and not a little gratifying) to hear the complete Zanden system sounding so wonderfully impressive at the Heathrow show. It also added momentum to the urge to lay my grubby mitts on the company's amplifiers (not to mention the phono-stage, which designer Yamada-san considers his masterpiece).



At first glance it's tempting to label the Zanden designs as classic examples of "less is more", but they are actually far more conceptually sophisticated than that. What they actually represent is the ruthless application of informed simplification, a sophisticated cost/benefit analysis in which the currency is musical rather than financial. The circuits are novel in outline and extremely unusual in execution, not because of what they put in (and component quality is

naturally first-class) but more for what they leave out. Each element is forced to justify its presence in terms of its contribution to the musical whole, as well as being "costed" in terms of any negative impact. The result is products that have been honed and refined to an exquisite degree of elegance, in which conceptual simplicity is the guiding principle rather than the blueprint of execution.

Let's take the 9500 mono-blocs as an example. Their almost cubic dimensions are visually striking, the flawless finish just as impressive on a tactile level. There's a graceful but purposeful air to the Zanden amps that both instils confidence and sets them apart. The casework is constructed from a mixture of 16mm aluminium plate and mirror-polished stainless steel, designed to establish a rigid, protective envelope

around the circuitry within. The details of construction are intricate and beautifully executed as well as contributing in no small part to the 42.5kg weight of each amplifier. There are no visible fixings, nothing ostentatious about their appearance, just a simple, immaculate exterior.

Inside, the circuitry quickly dispels any notion of "less is more" dogma. Whilst Zanden acknowledge the musical attraction of single-ended designs and valves in particular, they are also concerned by the limited power available from such an



► approach, a flaw which severely limits the ability of an amplifier to deal with the musical demands placed on it in real world systems. The challenge was to try and preserve that musicality and combine it with the benefits of higher output without suffering the sonic degradation that comes from multiple, push-pull output devices and the high levels of negative feedback so often necessary to keep them stable.



The result is unusual to say the least. The 9500 employs a single-pair of 845 triodes in a push-pull output stage. The patented topology employs no negative feedback and delivers 60 Watts within a 1dB limit from 25Hz to 20kHz. Hardly startling figures in themselves but a regular tour de force compared to the majority of the single-ended competition. But look through the perforated grille (the same grille that throws a patchwork lattice from the bright emitter 845s across the walls and ceiling of a darkened listening room) and you'll see no fewer than eight tubes scattered around the internal decking. That's because the Zanden uses a fully tube rectified power supply to feed every stage of the amplifier, from input and phase splitter to output. So much for simplicity! And that's the point. Yamada-san is not afraid of complex solutions if they are

necessary to the results he seeks. He doesn't just want simple, he wants the simplest circuit that will actually do the job, and that's a very big difference indeed, demanding considerable experience and judgement to achieve. That's why the 845s are fixed-bias rather than the cheaper and simpler cathode bias. The added cost and complication of fixed bias delivers greater control at low frequencies as well as slightly more power. But given the huge voltages involved and the desire to make the amplifiers as easy to use as possible, Zanden have developed an incredibly stable bias circuit that can simply be factory set. Thus the owner gets the best of both worlds,



the sound of fixed bias without the hassles. Likewise, the use of PCBs to carry the circuitry might well horrify purists but ensures greater accuracy and shorter signal paths, which add up to greater consistency between units. Besides, you just know that if Yamada-san could make a hardwired 9500 sound better than he would...

The amplifier offers both balanced XLR and single-ended phono inputs. WBT binding posts provide two, four and eight Ohm taps from the output transformer, while power reaches the unit via a standard IEC input. The socketry is grouped on the central rear panel which keeps everything tidy, although a little extra space between connectors would be no bad thing. There's a long, tapered switch at the

bottom of the front panel for power-up, surrounded by a ring that illuminates when the amp is switched on even though the 845s render any other form of status indicator unnecessary, with their soft, yellow glow. Switch-on is relay protected, which prevents unseemly rustling or thuds from your speakers. And while we're on the subject of noise it's worth mentioning that the Zandens are some of the quietest units I've ever used, valve or solid-state. Even with the fairly efficient OBX-R2s it was all but impossible to detect residual noise through the speakers.

The Model 3000 Pre-amplifier (it's actually a line-stage, Zanden also offering the previously mentioned Model 1200 MC or MM stand alone phono-stage) is virtually

identical to the DAC in appearance, sharing the same, modestly dimensioned chassis and shoe-box format polished steel power-supply casing. However, internally both units are totally different to their

digital counterparts, not least in their sheer simplicity. The 3000's valve rectified power supply relies on a single 6CA4 tube, while the audio circuit is based around one 5687 twin-triode. The all important volume control is a massive ALPS component while the power, source select and absolute phase control switches are mercury types for optimum sound quality and minimum sonic signature. The circuit is devoid of negative feedback, while Yamada-san has gone to enormous lengths to keep all signal paths as short as possible, again using a single main PCB to help in this regard. However, it's interesting to note that rather

► than simple wire links down to the board or PCB mounted socketry, relatively long runs of 8N cotton insulated copper solid-core carry the signals from the sockets and controls directly to their respective input points on the audio circuit, rather than relying on long PCB tracks. DC power arrives from the power-supply via a massive 10-pin umbilical cable which is sensibly long, allowing you to position the two units well apart.

The main chassis is constructed from the same 16mm aluminium plate/polished stainless steel cover combination as the power amps, which makes it surprisingly weighty and dense given its small overall size. The astonishing rigidity and solid construction underline Zanden's concern with environmental interference with their audio circuits, a concern that extends to the use of proprietary damping and noise absorption materials throughout their product range. In his introduction to the Model 3000's manual Yamada-san stresses the importance of the pre-amplifier being sonically invisible, a laudable aim that he has pursued to its logical extreme through a combination of careful component selection, considered construction, overall simplicity within the circuit and the maximum degree of external protection. There is something incredibly reassuring about the feel of the Zanden, its compact, almost inert quality when you pick up its 20lb mass. It seems at once purposeful and detached – which I guess is exactly how a pre-amp should be.

Despite appearances, the Zanden unit is almost as minimal as the Lyra Connoisseur, the separate knob for each function giving a false impression of functional complexity. Likewise, it offers no remote-control of function or volume (although the latter may well be on the way) and is bereft of even a manual mute switch. But, in stark contrast to the Lyra, the XLR sockets on

as simple as they can possibly be. The only thing to look out for is the Standby/On switch that takes a minute to activate the audio circuit, allowing it to stabilize. Thus, the Standby mode is a transition from off to on that the Model 3000 enacts automatically, indicating status by passing from a red LED to a green one next to the control. Switch it back to Standby and you are actually switching the unit off!

In matching terms, the Model 3000 offers a sensibly low output impedance of 300 Ohms with input values of 10k and 100kOhms for the balanced and single-ended inputs respectively. Overall

gain isn't stated but judging from the scope of the volume control and the 8V maximum output it is again in the sensible range – a nice change to the drive anything/worst case scenario mentality that seems to infect certain designers with the end result that in most cases you end up using about a tenth of the available volume control range. In marked contrast, the Zanden line-stage spent almost all of its time with the volume knob set between ten O'clock and three O'clock, allowing a superb degree of fine gain control. Of course, the input attenuators on the power amps meant that I could maintain this desirable situation even when changing from the 88dB

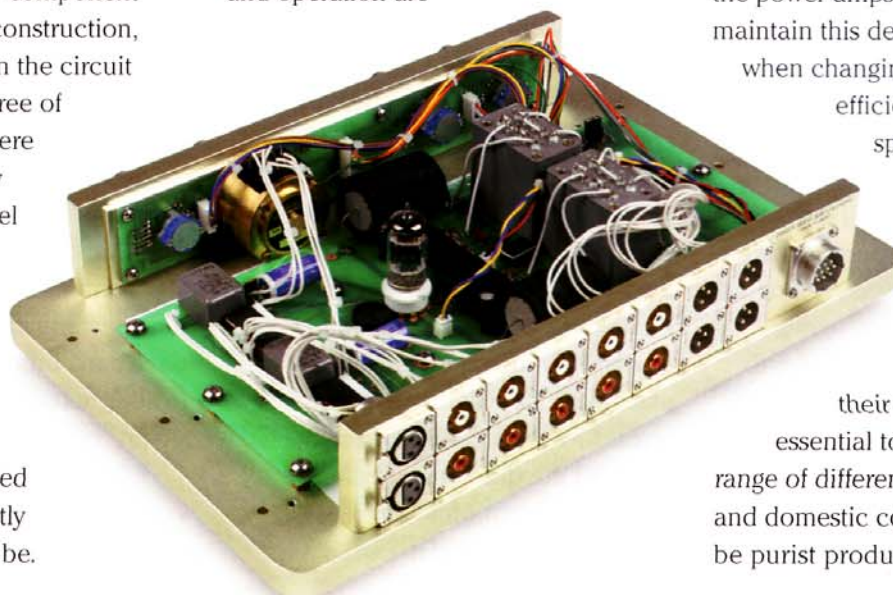
efficiency Nola Pegasus speakers to the 94dB

Living Voice OBX-R2s, a fact that underlines not just Zanden's aim of delivering absolute musical quality, but

their realization that it's essential to do so in a whole range of different equipment, musical and domestic contexts. These might be purist products, but they're ►



the back of the Model 3000 are genuine balanced connections, one pair for input and two pairs for output. Otherwise you get three single-ended line-inputs and two sets of single-ended outputs (no tape-out) and a pair of XLR shorting plugs that must be inserted into one of the balanced outputs if you are going to use the single-ended output option. This is to prevent ground noise leaking into the output circuitry. Otherwise, connection and operation are



► practical too, meaning that more owners will get more benefit more of the time.

One word of caution; Zanden explicitly advise against the use of Eichmann Bullet Plugs with all their equipment as they have experienced damage to some units when these have been employed. Whilst this is a function of the Bullets' tight fit and the clumsiness of the person inserting it, you have been warned. I used Neutrik terminated Valhalla cables throughout the review with no problems at all. Sources included the Kuzma Stabi XL/Airline record player, fitted with either the Lyra Titan or Kondo IO-J cartridges, the Tom Evans Groove Plus or Kondo step-ups. The Wadia 861SE was primary CD player, although I had a relatively brief opportunity to hear the Zanden amps in the context of their own front-end components, the Zanden CD player and phono-stage, driven by an SME 30/Triplanar/Benz LP 'table.

Confronted with a \$40000 amplifier, it's tempting to ask what more it can do compared to something as competent and relatively affordable as Hovland's RADIA? After all, the 5000's offer around half the paper power and considerably less load tolerance yet cost five times as much. But listen to the two amplifiers and you quickly realize that as admirable as the RADIA undoubtedly is (and it embarrasses not a few far more expensive units) the Zanden mono-blocs are in a different league, even when both receive the benefits of the Zanden line-stage doing the driving. Just a few bars, or more precisely a few notes, is all it takes to appreciate the special abilities of the Zanden amplification. The line-stage and mono-blocs combine an astonishing ability to reproduce individual notes, phrases or musical

strands, keeping each utterly separate and distinct, with the preservation of the performance as a whole. So, as well as letting you hear the individual contribution of the players and instruments, they also make clear the part that contribution makes to the whole, unraveling the inner relationships in a band or arrangement.

The next thing that will hit you is the sheer weight and substance of the lower registers, a feature that spreads up the range to give the



music a real sense of presence and solidity. Bass is deep and incredibly stable, pitch definite enough to call low-frequency definition into question. Playing the 5000s through the Nolas with their genuine 20Hz capabilities, I was at first worried by a deep bass wobble, a looseness and lack of leading edge definition really deep down. At first I put it down to the amps, but after a while, and given the narrowness of the affected band I started to wonder about the speaker placement. Sure enough, moving the beasts forward a couple of centimeters made all the difference. It didn't eliminate the problem entirely, but it certainly improved the situation

significantly. The track in question was 'Lime Tree Arbour' from Nick Cave's album *The Boatman's Call* (Mute Stumm 142) with its VERY deep, dense combination of swelling, undulating left-hand piano chords, Hammond, bass and drums. Swapping back to the RADIA to see how the bottom end definition compared I was astonished just how congealed, two-dimensional and opaque the sound became. Far from telling me anything about the Zanden's performance, what it demonstrated was that the 5000s were in fact victims of their own clarity, insight and tonal separation.

It was their very ability to differentiate the bass guitar, Hammond and piano, giving each its own distinct harmonic structure that had shown up the "issue" in the first place.

Interestingly, along with the separation and independence afforded to each strand in the music, comes an east, relaxed and unforced quality. No amps I've ever used have allowed

performers and music so much space to breathe. Yet at the same time, the pacing and tempo is never allowed to lag. So even on tracks as turgid and wallowing as the Nick Cave, the music settles into an easy lope, never getting stodgy or earthbound, the percussion work keeping things tight to the grid while Cave's piano chords and phrases dance little surges and emphasize the lyrical weighting on top. The result is a constantly shifting and evolving weave of threads, full of expressive nuance and harmonic texture creating a dramatic and moving whole that's at once dark, brooding and uplifting (as only a Nick Cave/P.J. Harvey "love album" could be*).

Of course, we all of us suffer from ►

* You want really dark, try the "split album" that followed, *No More Shall We Part*.

► the standard audiophile prejudices and mores, so having plumbed the depths of bass performance, there's always that preternatural impulse that demands to know how loud they'll go. Levels, even with the 88dB efficient Nolas can be described (in best Rolls Royce speak) as "sufficient".



I started out trying to upset things with Elgar's notoriously strident and difficult *Introduction And Allegro* (the Marriner/St Martins performance on a superb Argo pressing ZRG 573) only to have it transformed before my very ears to a thing of striking, stately beauty and measured solemnity. Thwarted in my avowed intent (and delayed by listening to the whole of the *Introduction...*) I reached straight for the Monteux/LSO *Enigma Variations* on the Classic repressing of RCA LSC-2418; this I was confident would burst the dam. Cueing that huge, ramped crescendo that occurs two-thirds of the way through Side 1 (I never have been able to work out which *Variation* it is) and advancing the volume well past the norm eventually forced the 5000's

into clipping, with glare and glassy treble destroying the orchestral facsimile, but by this stage the levels were so far beyond the necessary as to render the exercise pointless. Backing the volume off by a couple of notches restored order without diminishing the imposing scale and impact of the crescendo one iota. In fact, quite the opposite as the system sailed through each stepped increase in power, level and intensity, maintaining the stability, substance and presence of the soundstage, the integrity of the orchestra under the inspired guidance of Monteux. Even driving the rather more awkward load presented by the Avalon Eidolon Diamonds the 5000s never flinched and unless you use them with some thoroughly inappropriate speaker with an impedance plot that looks like the profile for an alpine Tour stage, clipping is more an indication that you are playing too loud for the performance rather than that the amps can't handle the dynamic swings.

It's a remarkably impressive envelope given the amps' modest power rating, but it's built on the solid low-frequency foundation that delivers that musical substance rather than on sheer volume. The complex richness of the natural harmonic structures delivered by the line-stage and preserved by the mono-blocs put flesh on the musical bones, body and presence into the performance that has more to do with reality than it has to do with hi-fi. None of that pared away, ethereal beauty here. Play the AAM Vivaldi *Gloria* and it's delivered with power and passion, body behind the voices, character in their delivery. Each segment in the choir, each layer in the separate parts is overlaid yet

distinct, the identity of individual voices adding to the texture and intimacy of the performance.

But what's most impressive of all, an extension of the separation these amps achieve, is the extent to which each instrument or voice maintains its individual energy level and harmonic identity, irrespective of the intensity or level of the whole. Thus quiet instruments co-exist utterly naturally with louder ones, one instrument can increase in level while another descends. It's such an obvious requirement, so basic to full musical expression, yet nearly all amps fail this test. As levels rise into a crescendo, the entire orchestra or choir gets carried along – except that in reality they don't. Graduation of energy levels within the fabric of the music is where the Zandens really excel, and never more obviously than in the Elgar *Enigma...*



Having chosen that crescendo to stretch the dynamic envelope, a trial the amps negotiated with almost contemptuous ease, the real revelation came on the dynamic down-slope. All too often when listening to the Monteux performance, that big crescendo that doesn't quite peak simply dies away, leaving a

► musical void until the lively, almost jaunty opening of the next variation. But with the Zandens that peak is beautifully constrained, one definite notch short of fff before the energy flows through and dissipates, the echoes in the descending phrases forming a natural release and bridge into the next opening. Suddenly the full majesty of both the composition and the performance is revealed in a way I've only ever experienced before at live concerts. It's the Zandens' mastery of separate dynamic strands that enables the system to follow the orchestra, rather than simply collapsing after the big effort. Again it's so basic – but again, it's so rare.

Does that make the Zanden amplification beyond criticism, devoid of flaws? Absolutely not. However the interesting thing is that the performance is so carefully considered and balanced that the weaknesses are in no way musically intrusive or obstructive. The line-stage, used in isolation can sound a little soft, almost gentle, certainly lacking the grip and absolute authority of the Lyra Connoisseur; like most 845 amps the 5000s trade muscular power and substance for air and extension. But in both cases the trade-offs are not as severe as you'd expect. There's tremendous subtlety that belies the presence of those four, enormous power-triodes, the sound is muscular not muscle bound. Likewise, if the leading edges delivered by the 3000 aren't as crisp or obvious as some, listen and you quickly realize that they're there. In each instance it's more a case of emphasis rather than content. Which brings me back to

the fleeting, tantalizingly brief period that I spent with the Zanden system as a whole.

It quickly becomes apparent that, despite the disparity in price and visual impact, the Model 5000 amps work better with the 3000 line-stage than almost anything else; the Vibe, the Hovland and the Herron all fell well short. Not surprisingly the Zanden products just gel,



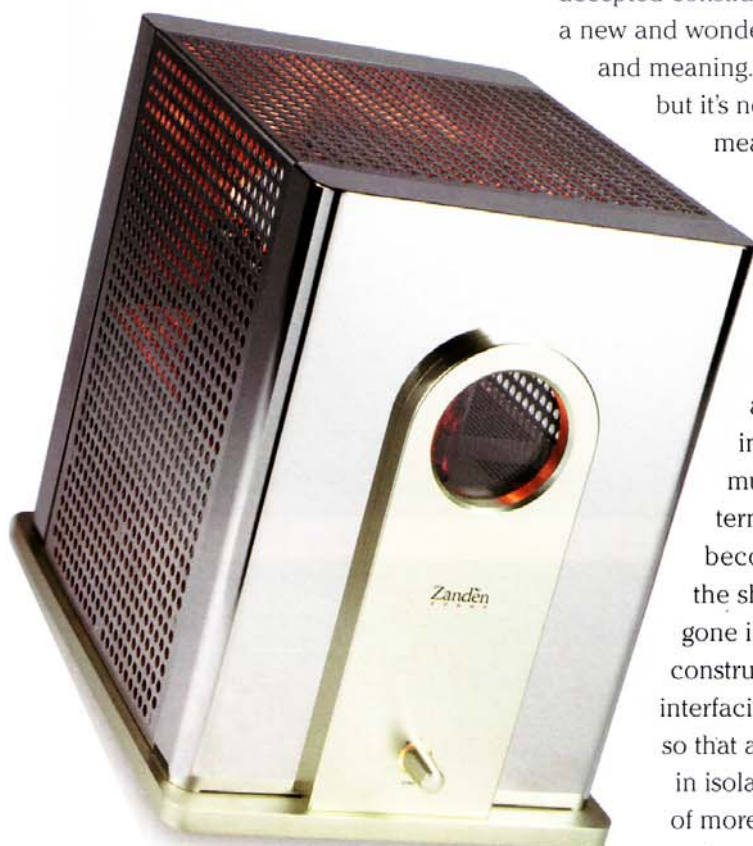
the whole being noticeably greater than the sum of the parts. That separation, the almost invisible level of control and deft subtlety emanates from the line-stage, fleshed out and empowered by the mono-blocs. Lesser line-stages make the amps sound clumsy, lesser amps make the line-stage sound limp. But together the pairing is majestic. Which leads to the logical conclusion that the Zanden front-ends might well add another, cumulative layer to the process. If the line-stage and amplifiers square rather than simply sum their performance, will the CD player or phono-stage cube the results?

As soon as the Zanden CD player enters the equation you realize that that is indeed the case. It's almost as if the amplifiers and line-stage have simply been biding their time and waiting for a signal that's truly deserving of their attention. The languid, easy grace of the performance, underlaid by an unmistakable, sinuous power raises the system so far above the hi-fi norm as to demand a complete reappraisal of expectations. Whilst playing discs on the Wadia had occasionally left me looking for greater drive and purpose in a performance, there were no such qualms with the Zanden player out front. On the contrary, the pace and space within the performance became so convincingly right, so naturally engaging that such concerns never even occurred. Instead, I was left to marvel at the layers and relationships within the music, the intimacy in the close harmonies of Steve Dawson and Diane Christiansen on 'Sweet Is The Anchor', the beautiful, simple power of 'Las Cuevas de Mario' on Art

Pepper's *Smack Up*. What you realize is that shortcomings in most systems act as obstacles or blocks to musical access and communication. The complete Zanden system communicates like no other I've heard, especially one running from a CD source.

The same basic observation is true of the phono-stage (a subject I'll return to in much greater depth another time) except that here not only does the Zanden have greater competition, but there's greater variability and personal choice in the selection of turntables, arms and especially cartridges. Playing the SME 30, Triplanar, Benz LP combination through the Zanden system actually exceeded the performance of the CD player, ►

► yet was less of a leap in quality over what I'd been accustomed to. Majoring again on the natural flow in the performance, the 1200 MC brought a wonderfully controlled and directed feel to the Elgar *Introduction*... without ever constraining the life and colours of the instruments. There was even greater ease in the climactic passage from *Enigma*... while solo instruments were stunningly dimensional and real.



Switches in loading, disc clamping or equalization (the 1200 MC offers a choice of three curves for Decca, Columbia and RIAA) were shockingly apparent and I'd love to have heard the Stabi XL, Airline and Titan through this system.

But such observations are almost churlish. The simple truth is that almost any record player would make music live through this system. And that is really the point; these elements – amplification and source components – are easily capable of standing alone but must be appreciated as a system if their achievements are to be fully

understood. Listen to an orchestra live and there's no effort involved in identifying the instruments and their contributions. Listen to a singer and the way they use their voice is an utterly natural extension of their musical expression. So it is with the Zanden system; music has the unfettered, engaging quality, the ease of access and emotional impact of the live event. Recordings move beyond the tacitly accepted constraints of mere hi-fi into a new and wonderful realm of message and meaning. It's not the real thing, but it's no longer what we mean or understand as "audio".

Which brings us to a conclusion of sorts. The Zanden products are unfailingly natural and universally impressive (in the true, musical sense of the term). Yet, it quickly becomes apparent that the sheer care that has gone into their individual construction extends to interfacing and compatibility, so that as well as they work in isolation, the combination of more than one element creates a whole that's significantly greater than the

sum of their parts. The more of the system and performance parameters you can gather under the Zanden umbrella the greater this effect, until a complete chain is breathtaking in its musical capabilities. Unfortunately it's breathtaking in terms of cost too, and for many, such a system remains a very distant dream indeed. But it is a dream that you should endeavor to experience, if only to appreciate what is possible if a reproductive path is taken to its logical extreme. The Zanden components are not the only answer, but they do help us define oh so clearly the true nature of the question. ➤

TECHNICAL SPECIFICATIONS

Model 3000 Pre-amplifier

Type:	Valve line-stage with separate valve rectified psu
Valve Complement:	1x 5687 1x 6CA4
Inputs:	1x balanced XLR 3x single-ended RCA/phono
Input Impedance:	10kOhms (balanced) 100kOhms (single-ended)
Outputs:	2x balanced XLR 2x single-ended RCA/phono
Output Impedance:	300 Ohms
Maximum Output:	8V
Dimensions (WxHxD) –	
Audio Chassis:	398 x 103 x 254mm
Power Supply:	155 x 165 x 355mm
Weights:	
Audio Chassis:	9kg
Power Supply:	5.5kg
Price:	£12950

Model 5000 Mk III Power Amplifier

Type:	Push-pull triode mono-bloc amplifier
Valve Complement:	2x 845 2x 2687WB 2x 5U4GB 1x 5AR4 1x 6X4
Inputs:	1x balanced XLR 1x single-ended RCA/phono
Input Impedance:	10kOhms
Output:	60 Watts (2, 4 or 8Ohm taps)
Dimensions (WxHxD):	320 x 440 x 450mm ea.
Weight:	42.5kg ea.
Price:	£38000

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