

Audio

A Special issue by **AUDIO** and **stereoplay**



€ 19,80

# ophile

THE HIGH END MAGAZINE 3/2011

## PERFECT HARMONY

### AMBIENCE AND ART

KEF Blade: Holographic staging, organic design

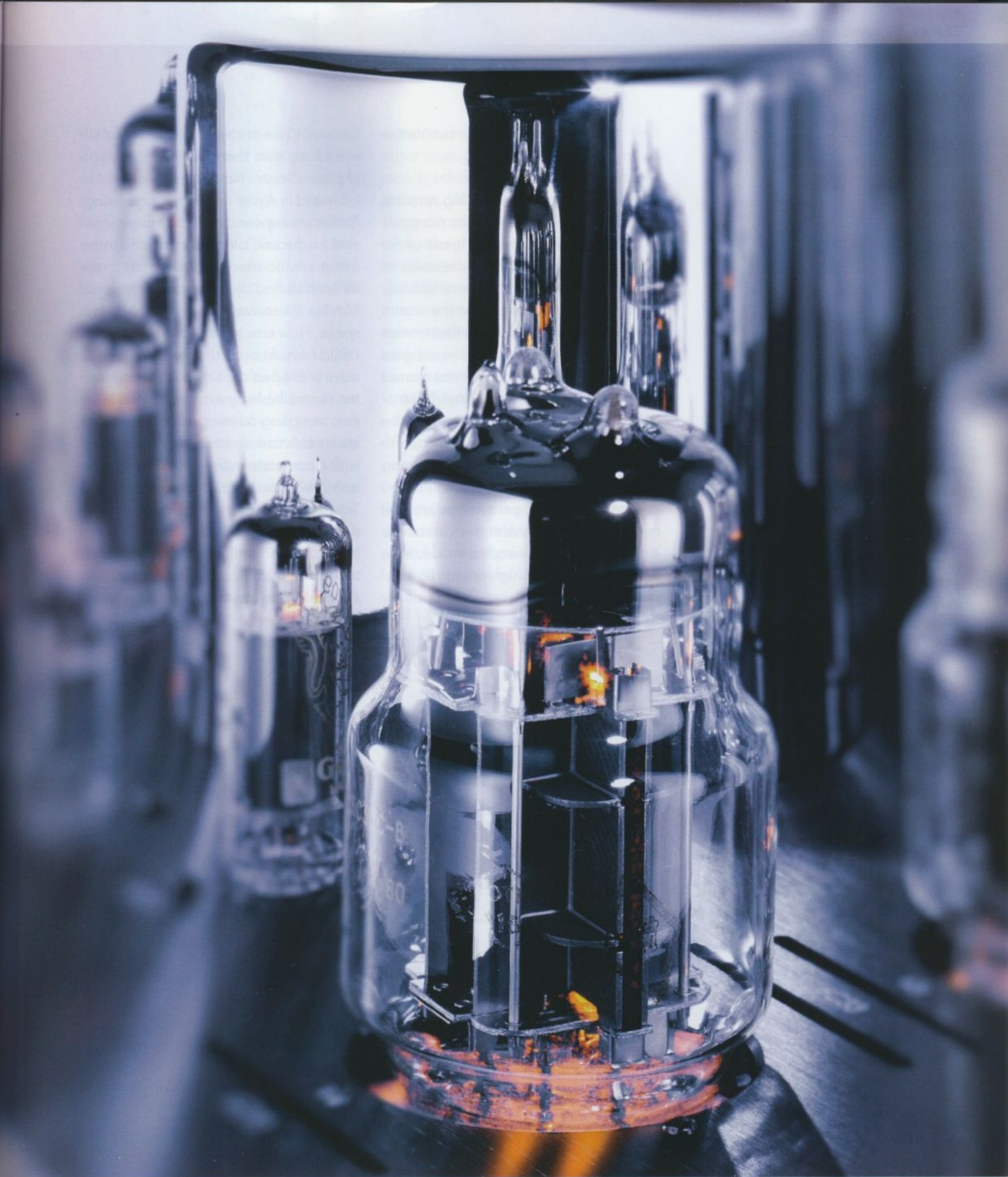
### TUBES AND DIGITAL

Ayon: Puristic Triode brings analog euphony for CD and USB





# Glowing Passion



Digital meets tube – nobody joins these apparently contrasting worlds better than Ayon. A CD player with D/A converter and built-in preamp docking to an ultra-puristic triode amp. When the music plays, this combination warms heart and mind. That's for sure.

Air in the back:  
Behind the top  
loader of the  
CD-5s, below the  
slots, two 6H30  
tubes on each  
side operate in  
a complete and  
very mature  
preamp architec-  
ture.

by Andreas Günther

**A**ustria? It is indeed a big surprise because the name does not point to the origin. First of all, it leads us far away. Ayon is an island off the coast of eastern Siberia. Exactly where nobody wants to go. So this cannot be the reason the name creators of Ayon Electronics had in mind. We continue to investigate – and find out that the island was named after the word of the locals “Ayo”. Translated it means “brain”. And in fact: the form of the island resembles a brain, with frontal lobe and everything belonging to it. So much for the association chain: the Austrian company created an artificial name to harmonize with the - immense - grey cells of the circuits inside. Vice versa: What kind of high end did we expect from Austria? If we were politically

incorrect (we are not of course) so we would say that there is a great portion of provincialism. Nothing of that kind can be found in Ayon: here is no sugar icing. Rather an exposed puristic power, arrayed in decent black. Reduced to the minimum. So much reduced that it was difficult to find the right product name. Maybe there was simply not enough space. How else such a long description could have fit onto the front part? “CD drive with open digital/analogue converter, controllable by external digital sources, sampling rates up to 192 kilohertz and resolution up to 24 bits, combined with a completely developed preamp in a single-ended circuit of pure class A.” That is clearly too long. Consequently, Ayon Audio engraved “CD-5s” on the front panel. This minimalism is in contrast to the material input. The fact is that Ayon components are heavy, very heavy.



With a weight of 19 kilos the CD-5s is still a lightweight. The power amp we added – likewise denying its “actual” name – comes up to 40 kilos. “Helios” is on the left side and “stereo power amplifier” down right in the corner. That’s right, but it is not more than a quarter of the truth. Correctly it should read, “parallel single-ended triode, of pure class A, without feedback loop”.

Ayon wants us to pay around 15,000 Euro for this duo. Is that fair? No, it’s not – it is unfair for the manufacturer. From a purely practical point of view, this combination has the potential to substitute a far larger chain. For instance, investments for a preamplifier and a DAC can be omitted. Furthermore, Ayon introduced a very mature single-ended circuit of pure class A into the interior of the CD-5s that not only controls the output volume of the CD rotating inside. Also

external digital sources and even two other analogue devices are controlled here. In other words, a fully-fledged tube-preamp. With ambition: every stereo channel is controlled by two triodes 6H30 each, designed by the Russian military, which are appreciated for their low noise and high quality to avoid overdriving – they are embedded into a completely analogue circuitry without negative feedback loop and flanked by a bridge rectification enclosing four 6C4P tubes.

Ayon has given three independent power supply units for every section: drive, digital conversion and analogue part – each one gets its own power station. In order to obtain a mechanical decoupling from the airborne sound, the drive is connected to the floor plate in an architecturally central way – and not fixed to the cover construction, as it is usual with the top loaders. With regard

Resembling a mountain massif: the output stage Helios weighs 40 kilos. Much more impressive is its perfect workmanship, not to mention the red glow on top of the black anodized aluminium.



to the driver, Ayon is deliberately unfaithful: the little brother CD-1, for example, runs a laser unit made by Sony and the CD-5s operates with the Philips top model CD-Pro 2. Straight at the beginning the bad news for all friends of SACD: No, the CD-5s does not belong to the super audio community. Only 16 bit at 44.1 kilohertz can be read out from a silver disc. A political decision? A decision subject to construction. The Ayon research department opted for the checked high quality of the Philips drive, which is not second to any SACD reader.

The data are transferred to four cascaded Burr-Brown converters. Ayon utilizes here the highly selected "k" variant of the 1704 chip – actuated by separate clocks with double - and consequently jitter-free synchronization. The CD-5s opens its converter circuits also to external signals. They can be fed according

to all modern standards – AES/EBU, SPDIF, TosLink and USB. Open questions that require honest answers: Who has ever utilized his computer or notebook to send digital raw data by USB to an external converter? Well, astonishingly few people of the target group. It is probably an inhibition threshold refraining them from doing so – PC and music should remain separate. It is an ancient discussion, ascetically deliberated, but completely missing the present potential. The CD-5s shows us how it works. The contact is absolutely worry-free. As soon as the computer recognizes an additional sound card, the music data will be sent to the CD-5s using a media player software. All this takes less than three minutes. The next step is to lean back and be impressed. See, for example, how a FLAC file with 24 bit and 96 kilohertz dupes every standard format (the Ayon

can go further, that is 24/192). The name "CD player" should be proscribed because this miracle animal only needs two partners: a good output stage and a loudspeaker. Ayon offers both. To AUDIophile, the most uncommon playing partner seemed to be the most appealing: the newest power amp called Helios. Not recommendable for intervertebral disc patients. 40 kilos need to be raised. Taking into account the price (6,750 Euro), the friendly local reseller will doubtlessly lift it for you. The weight is no fuss. Behind the conglomeration of tubes, four chrome-covered transformers emerge, resembling a mountain massif. The incasement itself is not the culprit of the heavy weight. Ayon manufactures it from finest, brushed and black anodized aluminium (with an impressive thickness of eight millimetres). A festival for the eyes: Ayon lines up its noble tubes, presenting



Under the glow: Helios is a feedback-loop-free, sumptuously stabilized zone. The encore: a phase detector (red LED) at the current input.



I am many in one: this is definitely not how the back of a pure CD player looks like. With its CD-5s, Ayon offers a complete digital converter board – plus analogue cinch and XLR inputs.

them with maximum contrast in front of a dark theatre background. In its double symmetrical stereo construction appears – as vanguard – on the left and the right hand side each two 6BQ5 and in front of them a 12AU7 on each side. The actual power packs glimmer with a “V” design, and two 6C33 power triodes per channel depart from there – from Russia, with love. In other words, the beautiful architecture shows a parallel single-ended triode of pure class A. As it is the case with the CD-5s, Ayon does without a feedback loop, which demands a very high precision from the triodes due to a nominal performance of 40 watt. The XXL transformer is optimized for speaker impedances of either four or eight ohms. As a matter of course, the connection to the source can be outmatched by cinch or symmetrically in this price range (without any doubt, clearly the better choice in our test run). Both components are finished in an exorbitant manner; the performance in a semi-dark auditory room is a great experience.

Now it's going to be dangerous. Perceiving so much external beauty, a hifi journalist (and human being) reacts with passion – but also raises his critical expectations at the same time. What will the sound be like? A magic moment once rotating the first CD and finding the right level.

Oh. May I be honest? Already after eight beats, the combination performs unrivalled. It seems that Ayon pursues its very own and demanding sound ideal. Is it the Austrian momentum we like to imagine, with mountains and alpine panoramas? In fact, both Ayons offered us amazingly sharp contours in our listening room. Even at the risk of becoming pathetic: this was no orchestra but the

”

Gerhart Hirt, proprietor of Ayon

“This is probably the world's most sumptuous tube CD player.”

view at a rock formation under a cloudless sky, clearest atmosphere and dazzling sunshine. The immemorial recording of Rimsky-Korsakov's “Sheherazade” published by Decca is such a powerful creation. The recording conducted by Ernest Ansermet is at full level and live. Extremely powerful but disharmonious solid state amplifiers are condemned to find a heroic death, taking with them some of the subwoofers. The Ayon duo converted the powerful performance into finesse – it was not just loud but appeared in hundreds of dynamic shadings. A moment of miracle. To whom of the two components may we give our gratitude? When we were listening, we changed elements: another power amp, changing the player. The basic characteristic of both Ayons is the same and consequently authentic: the developers like the fine resolution of the sound, almost resembling a British middle presence. We rather ascribe power and contours of the bass to the power amp. It was indeed luxurious, very different to the cliché that tubes are of certain effeminateness. Maybe the comparison with a sports car will help: the true art is to speed up from 210 to 280 – the thrust of the largest power spectrum. That is what Helios has. Tom Waits' album “Blood Money” is overlaid by a strenuous bass line during the song “Misery is the River of the World”. >

Most people ignore this, because the line is easily (or better: unfortunately) absorbed by very abundant upper basses. There are only few players offering this impulse. Even less amps convey this to the bass driver. The Ayon combination took it as if it were an easy finger exercise, without any strain, like a virtuoso who finds beginner's literature on his music stand.

Astonishment.

What remains? No easy decision. The converter, controllable by USB, marvellously and easily revives external high-res files. But even the greatest enjoyment - all the "inconceivable" quantity of information about music in harmony with warm timbres and triode-inspired atmosphere - cannot substitute the haptic experience of placing a record on the turntable. The Ayon top loader converts the CD with the ceremonial closing of the heavy cover into a true holistic enjoyment. There is only one thing for sure: the real high-end enthusiast needs both, network and CD. And preferably a component that dominates both with the same perfection as the Ayon chain. <

## Ayon Audio

### CD-05s

CD player, DAC, Tube-preamp:

Price: €7,950

Dimensions (WxHxD): 50x13x41 cm

Weight: 19 kg

Inputs: USB, AES/EBU, SPDIF, TosLink, Cinch & XLR

Outputs: S/PDIF (RCA), I2S, AES/EBU, Cinch & XLR

### Helios

Stereo triode power amp

Price: €6,750

Dimensions: 50x26x40 cm

Weight: 40 kg

Inputs: Line, XLR

Output: Loudspeaker 4/8 ohm

Distribution: Audium

Catostr. 7

D-12109 Berlin

Telephone: +49 (0)30 613 47 40

www.visionik.de

www.ayonaudio.com



## Test CD

Verdi -  
La Traviata

Kleiber's "Traviata" is simply perfect and now available as download (PCM24/88.2) with maximum possible resolution. Pull out your credit card, wait some minutes, send to CD-5s and be impressed.



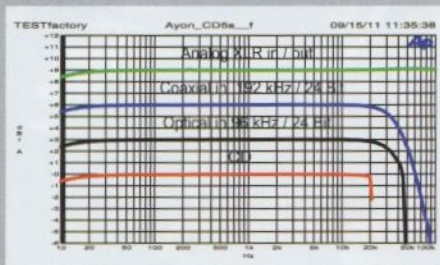
## The author

Andreas  
Günther

Observes and promotes the trend towards the network. The CD will face the fate Herbert von Karajan once predicted for the LP: "all else is gaslight". But the vinyl survived, and the CD will survive too - if there continue to be players like the Ayon.

## Ayon CD-5s

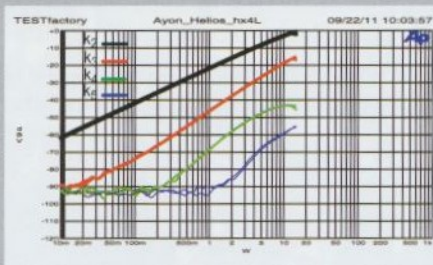
### Frequency responses



The precision of the analogue pre-amp establishes the quality (green line): well balanced, lineal, up to an unsurpassable at 100 kHz. The digital levels keep up with it - depending on their Codec (96 or 192 sampling frequency), the CD-5s swings out the signal harmonically. In direct comparison, the CD reaches its limits: at 20 kHz begins its free fall.

## Ayon Helios

### Dynamic distortion

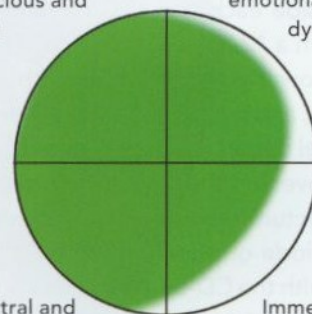


Elevated, but as straight as if it was drawn with a ruler: the distortion characteristics of the Helios rise prematurely and constantly, but in a harmonic graduation in accordance with the required performance. More symmetry is not possible. The critical point of view: the loudspeaker should not challenge the distortion by showing excessive power appetite.

## AUDIophile Character

Effortlessly spacious and soft

Grippingly emotional and dynamic



Neutral and authentic

Immediacy high resolution

## AUDIophile Potential



## Recommendation

Which speaker is in harmony with the triode? The efficiency must be respectable, but not extremely high. But the diaphragms shall be fast. In this sense, it is always an enthrallment: a horn or coax horn.



# Tube history

by Johannes Maier

Triodes have already existed for 100 years; they represent the first and original form of the amplifier tube. Despite their ancientness, audiophiles throughout the world love them more than ever. A tube has an airless glass bulb in which electrons can move freely. Three functional elements act inside: a cathode, heated as far as electrons can escape from its surface. A positively pre-charged iron sheet, the anode, aspirates these electrons.

If such a "diode" alignment already serves to obtain rectification, our amplifying triode still needs a control grid to influence the electron circulation between cathode and anode. On the basis of a determined negative bias, it is possible to slow down – or even stop, at worst – the flow of electrons.

Crossing over to the positive side, the activities are even more vivid. The grid attracts oppositely charged electrons and – for lack of retention space – sends them to the anode.

In the 1920s the tube experienced a

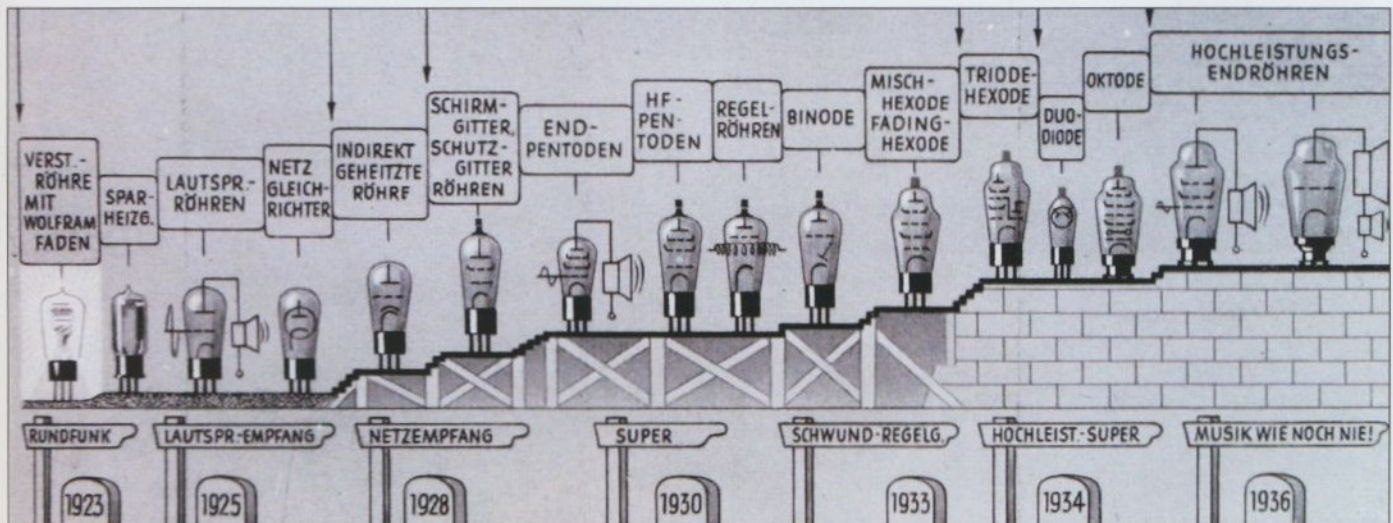
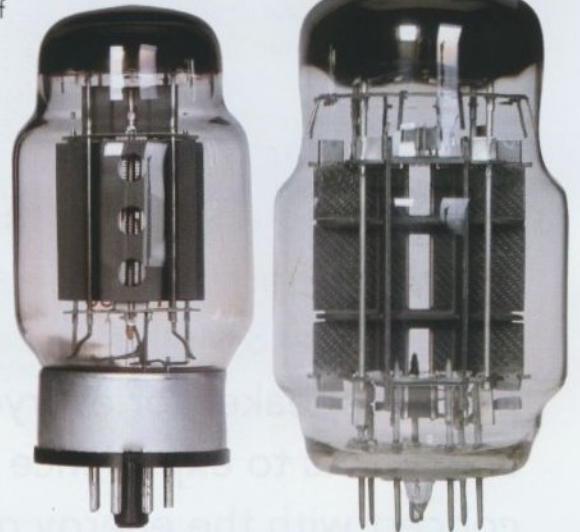
rapid development. For example, the cathode was divided into filament and emission plate. In order to increase the steepness, a screen grid was added to the popular tetrodes and a suppressor grid to the pentodes. The last-mentioned species, later used for high fidelity purposes, included the EL 34 and the KT 88.

In the 1960s the tube development slowly calmed down due to the transistor boom and now celebrates its resurrection. So Tung-Sol's KT 88 got a sister with more watts: KT 120. In Germany, Elrog – a company based in the federal state of Mecklenburg – delivered a brand new and significantly improved version of the power triode 845 for the first time this summer.

Why do we stick to the triode? Quite simple, no matter whether old or young, triodes still have the simplest tube architecture and the lowest number of rough edges. And this means: they still offer the most beautiful characteristics, the fewest distortions and simply the best sound.

The "super triode" AA62B is applied by Ayon Audio.

Other arrangement: pentode KT88 (left) and triode 6C33 (right)



Triodes were the first amplifier tubes, followed by the pentodes. Only with the high performance tubes it was possible to obtain performances in hifi: "Music like never before" calls this image from 1939 the development of those days.