

Temporal Coherence Pasithea (Goddess of relaxation and rest) loudspeakers

The time-correct dipole

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The products of Temporal Coherence are not new to me, I know the 100% Dutch brand already a couple of years and the earlier experiences made me look forward to a visit to Hans van Maanen, the personalisation of the company and to Hepta, where the loudspeaker designs are processed to complete products. The reason for the visit is the market introduction of a dipole loudspeaker in which all important design aspects of Temporal Coherence are respected. Things like impedance compensation, correct response in time domain and radiation pattern all require detailed attention. Whether the correct balance has been achieved by the creators, I will decide after listening in Westzaan at the domicile of Hepta.

The dipole finds its origin in the requirement to introduce a more affordable loudspeaker to the market than the previously introduced circumferential radiator designs of Temporal Coherence, without sacrificing too much of the quality of the reproduction. Instead of a circumferential radiator, a dipole design has been chosen for the mid and high frequencies and it was still more than practical to realise the low frequency radiator as a circumferential radiator. A dipole is to be preferred over a one-directional loudspeaker (as most are) because of a more natural reproduction of the sound and a better use of the acoustics of the listening room. The dipole has a better radiation pattern than a conventional loudspeaker, just listen to an electrostatic or a magnetostatic loudspeaker or a circumferential radiator and compare the result with all other systems.

The following design criteria lie at the basis of the Pasithea. The temporal response of the loudspeaker should be correct as the human hearing is most sensitive for the temporal response of it, it is our survival mechanism that our ears react to impulses. The passive filter should be easily interchangeable with an active filter with separation of low and mid+high ranges, so an active woofer can be realised. The filter should include impedance correction, so the loudspeaker behaves like a Ohmic load and thus no large phase shifts between voltage and current occur. This qualifies the loudspeaker for use with any amplifier. Use what you already familiar with, so the tweeter chosen was one from the Illuminator series of ScanSpeak, the same tweeter as is used in the other designs of Temporal Coherence. This tweeter is known for its superior reproduction of voices and a perfect sound image for every listening position. The wide cone surround and textile dome ensure a linear response to above 30 kHz and a magnificent spatial spreading. Its unique "AirCirc" magnet system and the expansion chamber behind the dome eliminate reflections and resonances. In this dipole, two of these tweeters are mounted in series, one radiating forward and one radiating in the

backward direction. The series mounting contributes to the amplifier-friendly impedance curve. The quality of the tweeter allows a crossover frequency of 1650 Hz. The Seas midrange unit has been developed as a long throw driver. The application of a stiff Aluminium cone and a supple rubber cone surround avoids break-up. A heavy magnet and a light weight Copper covered Aluminium voice coil allow a wide excursion with minimalization of disturbances in the lower frequency range and a very good impulse response. The filtering on the low frequency side of this unit is at 300 Hz. Because its rear side is open, it can work fine in the panel of the dipole. The woofers of the Seas operate in their own closed box. The extremely rigid cone has an almost exaggerated precision. The voice coil has four layers of windings and can be highly loaded. A phase plug ensures that the voice coil operates inside the strong magnetic field even with large excursions and the open connection to the rear avoids compression between dust cap and pole plate. For the sake of the circumferential radiation pattern, the woofer is placed horizontally and an inverted pyramid is placed above it to support the circumferential radiating a bit. A closed box has been chosen because these have a good temporal response. Because an open system like a dipole is handicapped by acoustic shortcut, the loudspeaker cannot be small. On top of that, the midrange unit should not be forced to large excursions, that would only lead to distortion. This explains the dimensions of 110 cm high, 60 cm wide and 28 cm deep. The dipole should be placed from 75 cm to, preferably a little over a meter, from the rear wall, which is impossible for me to realise at home. Therefore, the listening has taken place at Hepta in Westzaan, where Cris Rutgers builds the loudspeakers for Temporal Coherence. The amplifier, used for this review, was the control and power amplifier of Temporal Coherence, which I reviewed already in the past (see Music Emotion July 2017). As sources, a Marantz SACD player and a Bluesound Node 2 with internal DAC have been used. The price of the Pasithea is € 4.995,- per set.

Anyone who starts listening to a circumferential radiator needs some time to get used to the behaviour of the loudspeaker, which is clearly different from the point-like source as we know from 99% of the loudspeakers on the market. The next aspect to get used to is the low frequency response of a closed, in time and phase corrected, system. Gone is the hump in the low frequency range of the reflex port and gone are the smearing bases. At first, the base reproduction seems low and without soul, only after getting used to it, our hearing starts to experience it as correct and then it shows how bad a base-reflex system actually is.

Admitted, a base reflex ensures for the impression of a solid amount of low frequency from a small enclosure. Commercially very interesting and a good selling point. With a closed system, you lose on quantity, you win on quality. The Pasithea is by no means the first dipole in my ears and with the track "Coinleach glas an fhomair" of Clannad, I recognise the unlimited freedom of a dipole. You don't hear a box anymore, the system dissolves in the space and lets the music flow in a natural way and detached.

The size of the stereo image is as from an almost full range electrostatic, in the width a little less wide spread, in height very good. The depth of the stereo image lies behind the system and continues where the wall ends. The reproduction is direct, organic, pure and candid. You find that the low



frequencies are relatively modest, but very correct, even though our ears are tuned by industry to base reflex behaviour, by listening to "Hotel California", performed live by The Eagles. You need to get used that the low is finally balanced again and goes deep without any problems. Now the stereo image is wide, the reproduction lively, with a separation between the different instruments without losing the unity. The lead singer is on one line with the other members of the band, but he has free space around him. Percussion sounds short and fast. Halfway during the track, the public does not spread wide in space, but this must be the recording. Because at the end of the track, you are almost immersed in the applause. The reproduction is very well controlled, without being tight and offers insight into the original acoustics and the recording process. The proof that the low goes deep and controlled is provided by Nik Bärtsch with "Modul 29 14". There is no sign of banging or loosing tempo. Percussion is widely and deeply spread over the podium. An excellent reproduction, in a positive way different from what you are used to from a more classical designed loudspeaker. The sound of the concert piano is as I would expect it. The liveliness ensures that the music remains thrilling.

The Tingvall Trio with "Beat" really jumps into the space. The difference in recording technique is immediately offered in an enlarged way. With the Pasithea, music does not become as a "one size fits all" in which everything sounds averaged, because the temporal information is simply correct. So the space and the original acoustic or the way the downmix has been done is revealed. Percussion does not miss one single bit, its dynamics are large and unrestricted. Base remains present through the entire track. I do miss some information of the body of the piano, the total sound can be a bit harsh. I blame this, for the time being, to the internal DAC of the Node 2, which is, beyond doubt, the weakest link in the chain. King's Singers' "Good vibrations" is again a highlight regarding the localisation of the singers. No fringes, no baddie, just the gentlemen, who, one by one, plunk down their voice as an instrument in an enormous freedom of reproduction. Sounds from the mouth, clicks, everything is released with the same ease. This is really joyful to listen to as nothing is missing in the reproduction. The volume does not has to be loud for the correct impression. Angelina Whismes sings about her day in Nantes, it cannot get much more French than this. Beautiful is the distinction between the harmonica and the piano. Near the end of the track, the piano's high notes are aery, almost mystical. Singing is of high class. I choose from Paul Stephenson "These days" because you don't have to avoid male voices on the Pasithea, neither acoustical instruments up to the recorder. His warm voice was recorded quite large, whereas Whismes' voice in contrast is kept small and intimately. Music is beautifully carried on the foundation of the low notes. I like the base more and more, it makes me happy and now that I am used to the room and the set, I can sense what the designers had in mind. No exaggerated base, not too little, the dosage precisely as desired.

The Beaux Arts Trio ensures that the "Piano Trios by Beethoven" is plunked down realistically, in which each instrument has its own place and can be traced accurately. The result is a very fluent reproduction in which the violin and the piano compete for the first prize. From subtle to powerful, the loudspeaker has no difficulty with it and follows like a slave. No specific sound of its own can be distinguished, only the timbre of the instruments. I could listen to this for hours on end and still be captured by the music. I love the force, which is shown by the system, its dynamic jumps make me happy, the atmosphere it arouses makes me longing for more. I experience a living room concert without hiring the trio. Jaap van Zweden is, as soloist, part of the orchestra and yet he has its own spot in the stereo image. No weird note can be found on Locatelli's "L'arte del violino opus 3 Allegro Concerto no.1 D major", no fringe is distinguishable on the violin sounds, no matter how high the notes are. There is lots of space, the placement of the members of the orchestra is by example, purity is trump. What fun you can have with the Temporal Coherence Pasithea. After classical music, country is not to disdain when Alison Krauss & Union Station let this hear with "Paper airplane". Krauss is placed centrally in the right proportions, acoustic instruments jump up. Without any doubt, completely done, happy and beautiful.

Of course, Hans van Maanen and Cris Rutgers have made sure that the system has been correctly placed before I came to Westzaan. But the room is far from ideal and does actually not allow a reproduction on the level that I experienced. Along the walls, a large number of systems have been placed, the positioning in the width is possibly a compromise, but I do not see large blocks of foam of acoustic materials to influence the reproduction. This gives trust that the Temporal Coherence Pasithea will also create in your home a listening experience which will make you happy. The amplifier-friendly design will give you the opportunity to use almost any amplifier, as long as it is a high quality amplifier and source, as the Pasithea deserves this. Although this is only a listening impression and I am not able to test the Pasithea for weeks, the system feels trustworthy enough to bring it to your attention. In transparency and radiation pattern, the loudspeakers resemble an electrostatic or magnetostatic one and, of course, also a circumferential radiator. But an electrostatic loudspeaker requires several precautions and even maintenance, the Pasithea beats them by just working and keep on working in the coming years and beyond. The Temporal Coherence demands space around it for good positioning, but gives music experience in return. What the pictures do not show are several optical modifications, invented on the spot, nice to surprise you when you go to Westzaan yourself for a listening appointment. Do not take any preconceived ideas with you in your backpack, listen frankly and with an open mind to your own music. Then the Pasithea might be your most pleasant experience in years.

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