

# Synth-Werk BODE BARBERPOLE PHASER



Together with the ZKM, Center for Art and Media Karlsruhe, various inventions by Harald Bode are to be reconstructed. The extensive estate, the existing construction plans, design drawings, concepts, correspondence and other documents form the basis of the reconstructions. SYNTH-WERK, as the ZKM's technical partner for the Harald Bode archive, will bring the work of the ingenious physicist and musician Harald Bode back to life. The reconstructions of Harald Bode's devices, most of which are currently inaccessible or unpublished, will become part of the ZKM archive and the SYNTH-WERK product portfolio.

The first product of this exciting project is the BODE BARBERPOLE PHASER, the last commercially available product by Harald Bode. Today, Synth-Werk only know of one existing BODE BARBERPOLE PHASER, which is owned by Peer Bode, Harald's son. This last existing device was kindly made available to them by Peer Bode. Synth-Werk have reconstructed this device with the aid of numerous different circuit diagrams from the archive and also developed it further in the spirit of Harald Bode based on his very detailed diary entries.

Phaser effects are often used in music production to modulate the signal of guitars, synthesizers, keyboards or drums and give them a psychedelic or spacey character. The phaser can also have more subtle applications and may be used to add depth and width to an audio signal or to create movement in a mix. A typical phaser has parameters such as the number of phase stages (usually 4, 6 or 8), the filter frequency ranges, the modulation rate (speed of phase shift) and the amount of feedback (feedback of the effect signal to the input). Through experimenting with these parameters, you can achieve different variations of the phaser effect.

The BODE BARBERPOLE PHASER offers 9 phase stages and various sound

manipulation features. The option to insert an additional effect into the feedback loop or one of the two audio paths is one of them. The main feature of the BPP/product is infinity phasing. Infinity phasing is a psychoacoustic effect based on the Shepard scale, which was introduced in 1964 by the psychologist Roger N. Shepard. It creates the illusion of an infinitely ascending or descending scale that never exceeds the limit of one's hearing. The combination of the various features like left-right panning or the transfer of a monofonic input signal into a stereo output signal and modulation of the phaser creates a sonic soundstage in the tradition of Harald Bodes "Klangumformer" principal. If you think you know the sound of a Phaser, you need to listen to the Barberpole Phaser to understand the possibilities of a "Klangumformer"

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