

# Harald Bode

## A Lifetime for Sound



*A retrospective of physicist Harald Bode and his contributions to electronic music.*

## Harald Bode A Lifetime for Sound

Harald Bode (1909-1987 Hamburg, Germany) was an electronic musical instrument design pioneer. Harald's career spans 50 years of innovation, during which he produced over 15 instruments. In 1937 he built his *Warbo Formant* electronic organ which had capabilities similar to those found in modern synthesizers. In the 20 years that followed Harald developed a series of electronic keyboard instruments whose design variously balanced between imitating known instruments and enabling completely new sound possibilities. He is credited with the first modular synthesizer / processor and renowned for his later stand-alone processors. In addition to being an engineering hero, Harald Bode's life is an inspiration to the field of electronic sound.

Some of his famed contributions include the *Melochord* (1947-1953), the first postwar electronic instrument in Europe. With its freely varying sound parameters and "Klangfarbenmusik", timbres and sound colours only found in purely electronic instruments, the *Melochord* could produce new, never before heard sounds. In 1951, Meyer-Eppler commissioned a special *Melochord* for the newly established Studio für Elektronische Musik in Cologne, Germany.

Harald Bode and family moved to Brattleboro, Vermont in 1954 where he was Vice President and Director of Research and Development for the Estey Organ Corporation(1954-59). Harald brought to the Estey Organ Company the latest in electronic organ development. Along with a team of young engineering talent including Leslie Nicholas 1955-59, he developed the new, state of the art, *Estey Electronic Organ* models S and AS1.

In 1960 Harald Bode presented his *Modular Synthesizer and Sound Processor* (1959-1960 Brattleboro, VT) at that years Convention of the Audio Engineering Society. With this landmark presentation, he ushered in the era of the analog modular synthesizer. Bob Moog was in attendance and inspired by Harald's concept of the modular sound studio. This led to the development of the famed Moog Synthesizer. In December 1961 the widely read Electronics Magazine published an article written by Harald featuring his *Sound Synthesizer*, the first known instrument of its kind.

Around 1964 the composer Vladimir Ussachevsky commissioned Harald to create a "Klangumwandler", Frequency Shifter for the

Columbia - Princeton Electronic Music Center in New York. The *Bode Frequency Shifters* (1961-1980) have become a legend. To this date they remain very sought after. The instrument has been cloned by other manufacturers, as well it has been emulated in computer software. The music made with the *Bode Frequency Shifter* ranges from the classical avant-garde of Ussachewsky and Wendy Carlos to the electro-pop of Kraftwerk. The *Bode Ring Modulators* (1961) were also used in major academic and professional music studios including those of Joel Chadabe, Paul Bley and Motown Studios.

Harald's *Bode (Moog) Vocoder* (1977) was a particular success and is noted for its unique sound. It can be found on hit records of the era including the 1979 Lipps Inc., megahit, *Funkytown*. Among the many artists who purchased the instrument were musician Michael Boddicker, who used it on Michael Jackson's, 1982 record breaking album, *Thriller*. Suzanne Ciani made significant use of the *Bode Vocoder* for her many radio and television ads. And it can be found in the work of video artists, Gary Hill and the Vasulka's.

The Estey Organ Museum is proud to present 'A Lifetime for Sound, a retrospective of physicist Harald Bode and his contributions to electronic music'. This is a 50-year survey in image and sound recordings, documenting the contributions of Harald Bode, one of the great pioneers of electronic sound.

The Estey Organ Museum represents the unique history of the Estey Organ Company of Brattleboro, Vermont. The company, operating for over a century, was world renowned for the manufacturing of American Reed, Pipe, and Electronic Organs.

### Harald Bode's Electronic Instruments:

Warbo Formant Organ  
Melodium  
Melo-chord  
Polychord  
Polychord III  
Tuttivox  
Cembaphon

Bode Organ  
Estey Organ Model S and AS-1  
Modular Synthesizer-  
Sound Processor  
Bode Ring Modulator  
Bode Frequency Shifters  
Bode Vocoder (Moog Vocoder)  
Bode Barperpole Phaser

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Information:

Opening Saturday June 12th 1:00-4:00pm.

The Exhibition is open summer 2010/11, Saturday and Sunday 1:00-4:00 pm. For additional information or special arrangements please call 802-254-4280.

[haraldbodenews.wordpress.com](http://haraldbodenews.wordpress.com)

Cover - Harald Bode performing on the Estey Electronic Organ c. 1957, Brattleboro, Vermont.

