

Bob Moog

## ByteNoise

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Bob Moog is often credited with inventing the synthesiser, but that's not entirely true. There were several other people who built their own synthesisers in the nineteen sixties, including Don Buchla and Paul Ketoff. There were others who had even beat them to it by several decades, such as Harald Bode (who went on to work for Moog), Hugh Le Caine (whose synthesiser was only ever an amateur prototype, but very expressive), and Raymond Scott (who built and then played his own synthesisers, creating music far ahead of its time, and who Bob Moog worked for in the nineteen fifties). What made Moog stand out wasn't his initial invention, but his willingness to listen to his friends, customers and employees in order to refine it.

Since listening to Baba Brinkman's album *The Rap Guide to Evolution*, my motto has been *performance, feedback, revision*. It's the only way to improve something: try it out, find out from other people how you should improve it, implement those improvements, then repeat. While other people made synthesisers, it was Moog who continually *improved* his synthesiser to better match the needs of the musicians who used it.

At Herbert Deutsch's suggestion, Moog added a piano-like keyboard to his synthesiser. He wasn't the first person to do so, but it was an important step for turning his invention into a user-friendly product.

Keyboards are so ingrained in modern synthesisers that people take them for granted, even calling synthesisers themselves "keyboards," but until that point, there was no consensus on how to tell the synthesiser which note to play. Everyone — even Moog himself — was trying all sorts of whacky and expressive controllers such as the ribbon controller, which is more like a violin or fretless guitar than a piano: it allows portamento and allows any pitch to be played, but is much harder to use. Moog was happy to simplify his synthesiser with a sensible, practical design in order to turn it from a hobbyist's expensive gimmick into a useful tool for a musician to use to do her job.

At Wendy Carlos's suggestion, Moog added velocity sensitivity to his keyboards. Again, he wasn't the first to do so, but it was refinements such as these which added up to a formidable product. It makes a big difference whether a synthesiser can tell how hard its keys are being played. Just listen to Vangelis playing his wonderfully expressive yet equally temperamental Yamaha CS-80 in the Blade Runner soundtrack for an example of some beautifully emotive synthesiser playing.

One of Moog's employees, Bill Hemsath, made an even simpler, cut-down version of Moog's modular synthesiser during his lunch breaks. His design got rid of the large and intimidating wall of discrete modules connected via loosely strung patch cables that made it resemble a phone switchboard, along with the equally intimidating price tag. Moog embraced this simplified version of his instrument, putting it into full production. The resulting product, the portable Minimoog, was the first all-in-one synthesiser that combined everything in a simple, neat little package.

These days, almost every synthesiser you can buy, space saving rackmounts aside, superficially resembles a Minimoog

with its well thought out controls such as its mod wheel and pitch bend. It was an excellent design, and has been imitated countless times with good reason.

So please, don't remember Bob Moog as the inventor of the synthesiser. Remember him as someone smart enough to listen to his friends, customers and employees, and refine his products accordingly. Remember him as the inventor of the *musician-friendly* synthesiser.

## References

- Analog Days
- Electronic Musical Instrument 1870 - 1990