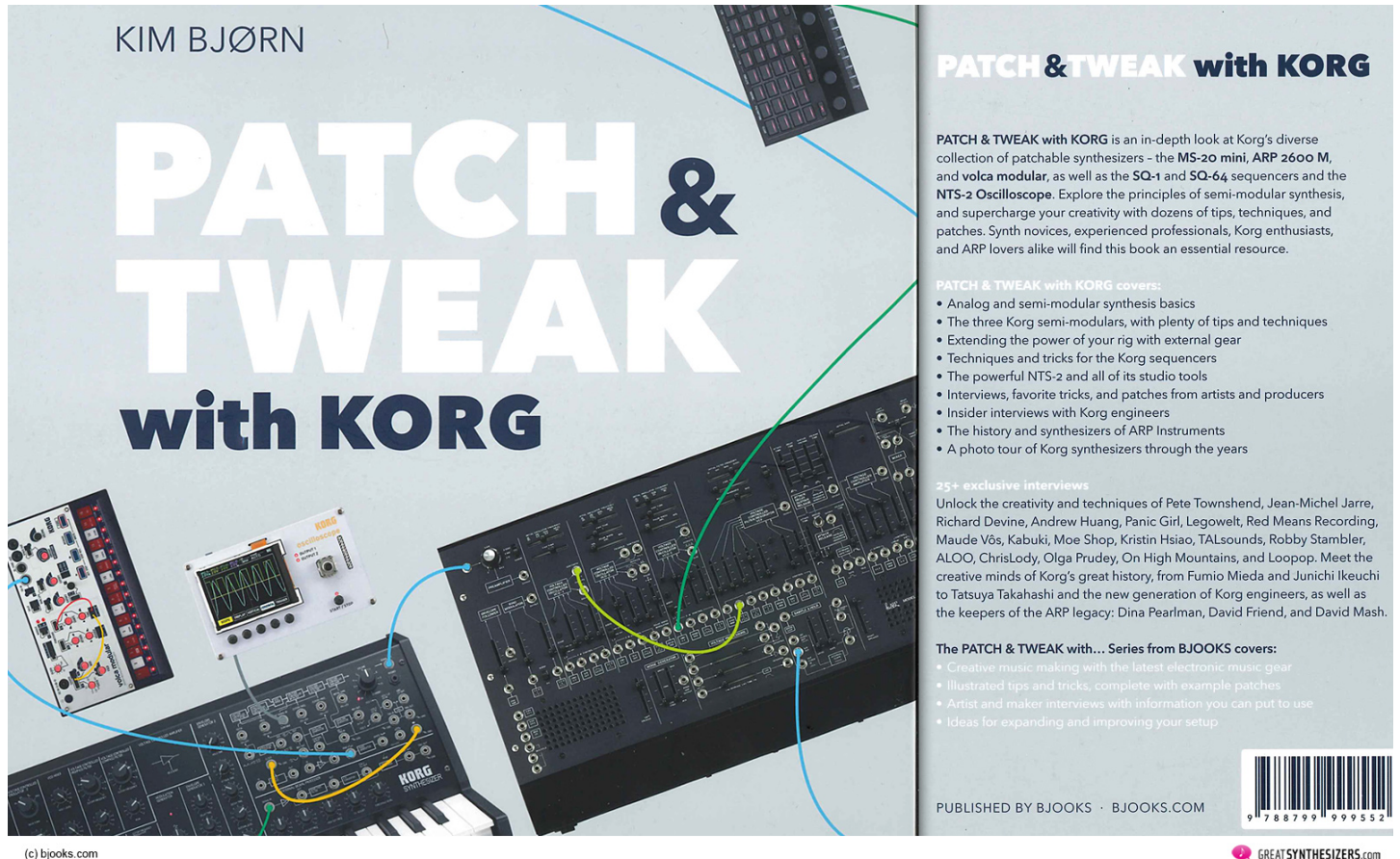


Kim Bjørn ist zu bewundern. Seine Bücher-Serie wächst (und wächst). Jedes einzelne Buch ist ein beeindruckendes Aufgebot an Interviews, an gesammelten Informationen, an Fachwissen, an Dokumentationen, an gelungenen Fotos und vielem mehr. Darüber hinaus merkt man deutlich, dass Kim Bjørn ein Kenner der Materie *und* auch gelernter Grafiker ist *und* dass viele Personen am Gelingen eines solchen Buches beteiligt waren (so stammen etwa viele der besonders exzellenten Vintage-Synths Bilder von Peter M. Mahr).



Der Umschlag von **PATCH & TWEAK with KORG** mag zunächst allerdings etwas irritieren. Volca, MS-20 Mini, alles *neue* Instrumente? Ein Werbebuch für Korg? Nun, vielleicht das *auch*, aber dennoch weit gefehlt: Das Buch umfasst eine Vielzahl an Instrumenten und spannt einen großen historischen Bogen – von den Vintage ARP- und Korg-Instrumenten über die erfolgreiche Digital-Ära (M1 etc.) und spätere Oasys-Superlativen bis zu aktuellen prologue / minilogue Instrumenten, der Volca-Serie, dem MS-20 Mini und dem ARP (Korg) Odyssey / 2600 / 2600M.

Buchempfehlung: PATCH & TWEAK with KORG (by Kim Bjørn)

deep warm when the heating turned off for the night. As Mieda puts it: "We went through hardships, but our effort paid off in the end. In addition, we had a chance to develop the VC-10, the world's first vocoder with a board attached, built into an MS series chassis." In April 1978, the MS-10, MS-20, SQ-10, and VC-10 were presented at a large press conference and concert, which included the popular band Prism. Akira Wada and Ken Watanabe as guest performers. The younger generation took notice, and reaped the benefits of learning how to develop affordable products.

notes rather than one note - as a trigger signal. Typically, chattering is a phenomenon we need to eliminate, but we used it in another way for these instruments. Using the chatter for triggering, we no longer needed a dedicated keyboard switch line for that - this secret let us cut the cost significantly."

"One interesting feature of the MS-20 was that there was no modulation or pitch wheel - just a 'wheel'. Mieda explains: "We did not limit the Momentary Switch and Wheel to a particular function; we opened them up for users to connect themselves, as a trigger or voltage generator. We expected someone to use them in a crazy way. Furthermore, locating them on the left side of the keyboard allowed users to control sound while playing simultaneously."

MS-20 mini and beyond

In 2012, Mr. Mieda was consulting on the design of the MS-20 mini, with a team headed by Chief Engineer Hiroaki Nishijima.

"It was a great idea. If I had a chance to get hold of a small keyboard and components in the 1970s, I would have made an MS-20 mini first. A small keyboard is good enough for only playing with sound."

Several software iterations of the MS-20 have been made, like the simple DS-1 for the Nintendo Game Boy Advance, the iPad. Still, Mr.

by Russian radio stations transmitting sounds across frequency bands, intermodulating them, and then broadcasting them at the receiver end. He set out to recreate this sound with just a few parts, and created a unique effect pedal with elements of phasing, chorus, and vibrato. The Uni-Vibe has been used by the likes of Jimi Hendrix, Robin Trower, and Pink Floyd.



FOREWORD BY KITARO

Since I started my music career, I've learned many different things about music and sound - and I'm still learning.

A long time ago - nearly half a century - I used to live in Tokyo. I played organ and guitar. Then I met the 'magical box' - the synthesizer. My first was a Minimoog, but I went on to meet other synthesizers too, with many Korg synths among them. It was a shocking encounter at the time. It changed my way of thinking - and my life.

I never had any musical education beyond the where I played in an amateur band at graduation. Trying to learn music on my own, playing by ear, was not an easy task - and I had no experience with modern electronic technology, either.

However, our imagination comes from an invisible manifestation of it will become easier.

When I met Mr. Katoh, the president of Korg (then Keio Electronics), he had a big dream of creating a truly new synthesizer. He received my input on many different prototypes of Korg synthesizers, as I performed on these 'magic boxes'.

It was a brilliant era, full of deeply inspiring creativity; many electronic music pioneers came up with new sounds and new songs, many of which still resonate today.

In the late 1970s, I moved to the Japanese countryside, where I worked on the TV series *Silk Road*. My life in the mountains offered many different experiences that connected me with the sounds of nature and with the spiritual world. When we are silent and can reach out from our silence, we can feel so many different dimensions of experience. The wind blows, the birds sing, we hear and feel the sounds of rain and lightning - and when it snows, we feel how sound is absorbed into the silence.

In visual as well as auditory terms, we live in a magical world. When we focus, we can see deep into our inner spirit. From that point of vision, I try to create sounds by matching the sounds of Nature with my synthesizer.

It is an amazing experience: sound itself comes and goes, and we feel an invisible energy, a magical power. When we believe this, a magical energy...



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architect of New Age
composer and musician
des, 88 albums, and 35

ore for the
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Doch auch Triton, Radias, Electribes, Legacy ... praktisch alle Instrumente von Korg scheinen auf und machen deutlich, wie innovativ dieses Unternehmen in jeder Epoche war bzw. es heute noch ist. Mit dabei viele Interviews, Tipps, Denkanstöße, musikalische Anregungen. Das Vorwort von Kitaro (emsiger User mit einem besonderen Faible für den Korg 700) ist ebenso lesenswert wie die Geschichte der Firma KORG. Auch inkludiert: Die Geschichte der Vintage ARP Instrumente, damit der Bogen vom originalen 2600 bzw. Odyssey zu aktuellen Korg-Replikas genauso stimmig ist wie der Rest des Werkes.

Buchempfehlung: PATCH & TWEAK with KORG (by Kim Bjørn)

Oberheim Synthesizer Expander Module (SEM) that was introduced at roughly the same time.



KR-55 (1979) and KR-55B (1982)

Korg's first tabletop rhythm machine for professionals, the "Korg Rhythm 55" contains a whopping 96 preset rhythms with remote start/stop and Intro/Fill controls, with individual level controls for its 12 internal sounds. A later version, the KR-55B, increases the number of preset rhythms to 192.



X-911 (1979)

Korg's first guitar synthesizer is a desktop box containing a simplified set of Synthe and Instrument voices from the Sigma, combined with a pitch-to-voltage converter to listen directly to any input audio signal without a special pickup.



d Piano,
as well as a
keyboard



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PS-3100 (1977)

The PS Series are fully polyphonic. Every key on the 48-key keyboard plays its own voice. They come from a top octave network, where the 12 keys can simultaneously makeable in lower octaves. Each note played has its own amplitude envelope and articulation. The PS-3100 has another fi



PS-3300 (1977)

The PS-3300 is the ultimate phonic overkill. It also has polyphony, but each voice is identical PS-3100 signal. It has its own temperaments. Individual scale notes can be for alternate voicings rather than being tied to the equal temperament that's standard on nearly every keyboard.



PS-3200 (1978)

The last of the PS semi-modular synths was Korg's first programmable keyboard based on a microprocessor. As its name suggests, it has 16 programs per key rather than its predecessor's one and three, and can recall 16 programs.

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Kim Bjørn hat es übrigens als Erster verstanden, die Korg PS-Serie in zeitlich korrekter Reihenfolge zu thematisieren. Meist werden diese Instrumente in der Literatur ihrer Nummer entsprechend – PS-3100/PS-3200/PS-3300 – aufsteigend genannt, obwohl der zeitliche Ablauf ein anderer ist und dabei vor allem eine wesentliche technische Zäsur in der Synthesizer-Geschichte – der Beginn der programmierbaren Poly-Synthesizer im Jahre 1978, in diesem Fall durch den Korg PS-3200 – nicht zur Geltung kommt. Selbst wenn minimale „Hoppalas“ im Buch zu finden sind (einige wenige Jahreszahlen sind nicht ganz korrekt), darf man Kim Bjørn zu seiner journalistischen Arbeit gratulieren.

FROM FOLKTRONICA TO TECHNO

Interview with Olga Prudey, multi-instrumentalist and singer

Although Ukrainian Olga Prudey is first and foremost a singer, there's no doubt about her passion for electronic instruments.

"I simply love the world of modular synths - for me it's a territory of freedom, unexpected creation and experiments. In this big modular world, I have one little but mighty friend - my Korg volca modular.

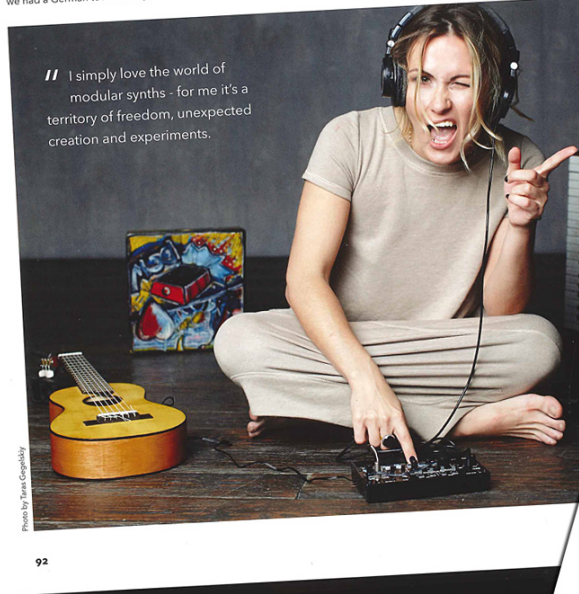
"I discovered it in a music store in Munich when we had a German tour with my band in 2019. I just

fell in love with the sound, size, and musical opportunities it promised. Since then, I've been playing it as part of my musical setup.

"My main instrument is my voice, so I mostly perform as a singer using the TC-Helicon VoiceLive Touch vocal processor. However, as a musician, I just love Korg products and volca kick are by far my favorites - I really feel freedom within limits while

playing the two of them. Sometimes I add the KAOSSILATOR PRO and microKORG to my setup." The volca drum is Olga's next 'little friend' that she's just started to explore.

"What I like about the volca series is the unexpected ways you can use them. For example, the volca kick is not only about kick. It's more about basslines for me. Same with the volca drum - it's great experimental gear with a huge sound palette."



"I simply love the world of modular synths - for me it's a territory of freedom, unexpected creation and experiments."

... modular techniques

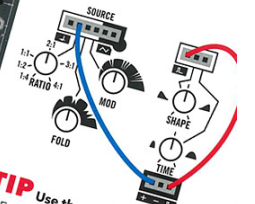
... Olga is keen on building up...
... and variations...
... modular is

ENVELOPES CONTINUED

Envelopes for percussion - Lazy Drum Machine patch

The ARP 2600's envelopes have been used by the likes of Depeche Mode to synthesize drum sounds. The ADSR envelope is used for both pitch modulation and the overall shape of the bass drum, and the AR envelope is used for added emphasis. The patch is triggered by the internal clock, using the Electronic Switch and Noise Generator to create snare hits. Lower the red sliders for less 909 and raise the SUSTAIN again for a more boomy 808 feel.

Envelopes on repeat
Looping envelopes are great for several purposes. An AD envelope at a sufficient rate will come audible and therefore function as an oscillator. At lower rates it can be used for modulation purposes.



TIP Use the end trigger output of Function2 on the volca modular to loop the envelope, thus creating a modulation source (see some shapes on p. 90). Tweak the SHAPE and TIME knobs to go into audio rate. Patch example, the S...

MS-20 unstoppable bass drummer
In this patch, VCO levels are at 0, and the EG1 ATTACK and...

volca modular - random, scales, motion recording, and more



The volca modular sequencer can store 16 sequences, and has many functions in common with the other volcas'. While holding the **FUNC** button, you can choose which **SCALE** and **TONE** (root note) you want the sequence (and keyboard) to adhere to - see an overview of the scales on p. 125. Like several other volcas, the modular's sequencer does have a feature unique to it: **MICROTUNING**, which lets you tune each step up to ±100 cent (one semitone), and save your tuning with the sequence.

With the two **OCTAVE** buttons, you have a total of three octaves to work with. Gate length can be set to **LONG** for a longer sustain on notes as they play back. The **RANDOMIZE** button lets you randomize the notes, as well as which steps are active in the sequence - and even the microtuning! Combine that with **BOUNCE** and **STOCHASTIC** playback modes, and you have some unique and powerful improvisation and performance options.

The volca modular lets you record live playing or input notes step by step. You can save up to 16 patterns of 16 steps each.



Tempo variations
An interesting feature, the **CLOCK OFFSET** input allows the tempo of the sequencer to be adjusted by control voltages to create moderate changes. The **CLOCK** knob covers 56-240 BPM, but can be changed to 10-600 BPM.

Manual LFOs - Motion Recording
The volca modular can record all knobs' movements while recording a sequence - except for **CLOCK**, **UTILITY** knob **C**, and **VOLUME**. Create interesting variations by recording knob movements, then turn the playback of these movements on and off (**FUNC+13**) during performance. The knob movements override the position of the physical knobs.

SQ-64 - advanced melodic sequencing, modulation, and drum triggering

The SQ-64 can work as your sequencing hub between volcas, Eurorack modular, a DAW, MIDI hardware, and more. It features the popular configuration of three melodic tracks with **CV**, **GATE** and **MOD** outputs - all polyphonic over MIDI - and a Drum track with 8 analog trigger outputs. Like the SQ-1, the SQ-64 can be configured to send Hz/V and S-triggers to the MS-20 mini, on a per-track basis.

It features the same scales as the volca modular, and several playback modes and time resolutions - all of which can be set independently per track. **POLYRHYTHM** allows different tracks of different lengths to play back together (p. 122). With these capabilities, together with probability per step, **STOCHASTIC**, and **RANDOM** modes, there's lots of potential for endless variation.

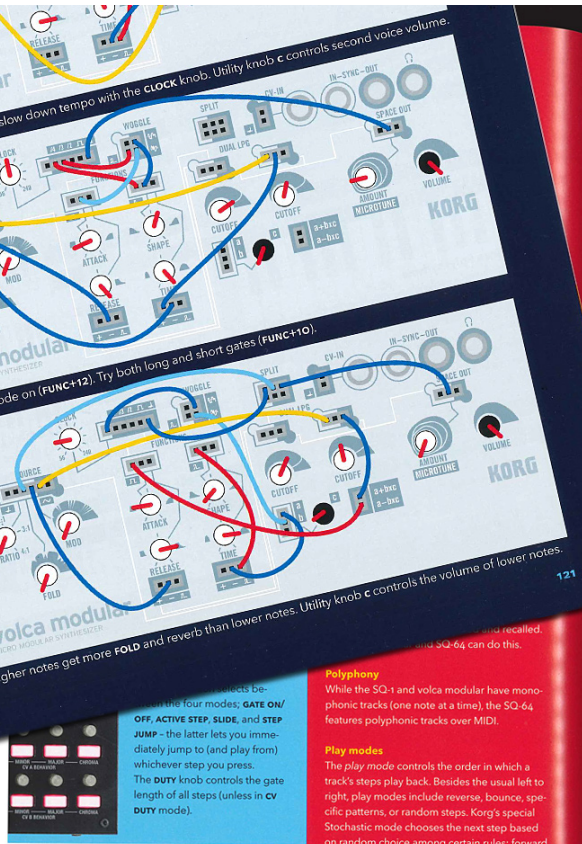
The SQ-64 lets you save up to 64 projects of 16 patterns for each of its tracks. A **CONTROL** mode allows you to use the SQ-64 as a controller, and a loop mode will let you **LOOP** sections of your patterns while performing. The button grid can also function as a keyboard in three different layouts: chromatic, isomorphic, or just the notes in the chosen scale.



Polyphony
While the SQ-1 and volca modular have monophonic tracks (one note at a time), the SQ-64 features polyphonic tracks over MIDI.

Play modes
The **play mode** controls the order in which a track's steps play back. Besides the usual left to right, play modes include reverse, bounce, specific patterns, or random steps. Korg's special **Stochastic** mode chooses the next step based on random choice among certain rules: forward one, backward one, skip a step, or repeat a step.

In each of the three melodic tracks (A/B/C) there are gate, pitch and modulation rows available, while the Drum track (D) has 16 sub tracks (rows), eight of which are MIDI-only.



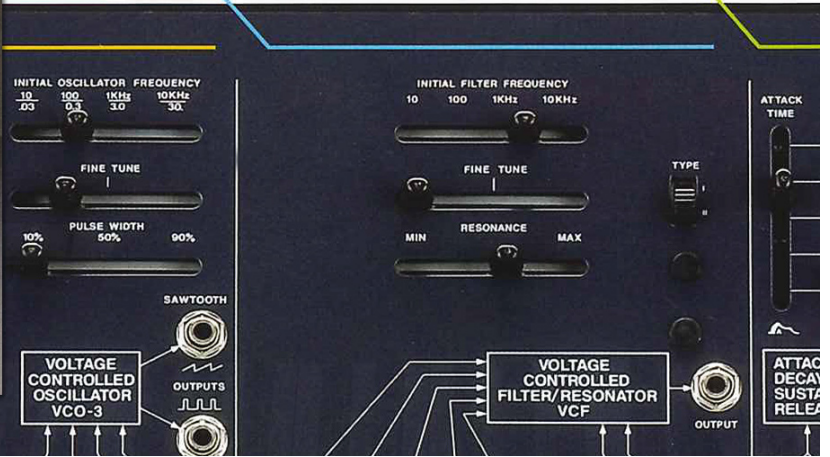
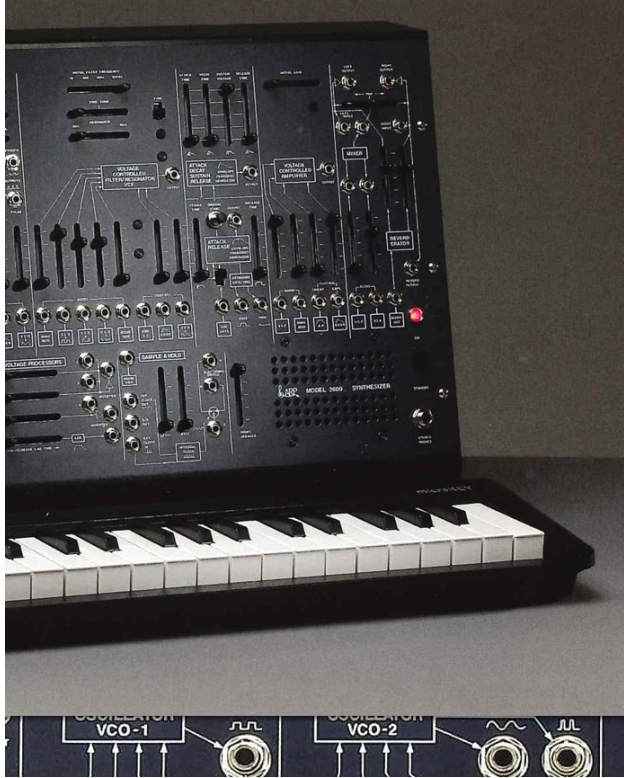
Envelopes

The *Envelope* section features two different adjustable envelopes with individual outputs, an ADSR and a simpler AR. Both are triggered from the same **GATE** input or from the **KEYBOARD GATE/TRIG**, which is also passed to their own **GATE** and **TRIG** outputs. A **MANUAL START** button allows you to trigger envelopes manually.

Mix + C

The **ARI** speaker are fed normally through outputs. The output,

Controlled Filter (VCF) section lets you



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KAOSS Mixers

These devices offer basic DJ mixing with input level controls, a crossfader, and integrated KAOSS Pad effects. The 2-channel KAOSS Mixer KM...

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SOUNDS HAPPENING ALL THE TIME

Interview with Richard Devine, sound designer and electronic composer

The ARP 2600 was Richard Devine's first adventure into the modular side of synthesis.

"Prior to that I had only used monophonic synthesizers like the SH-101, or some of the polys like Jupiters at the time; this was back in the mid-1990s when I was buying a lot of gear from pawn shops."

The 2600 was interesting to the future sound designer, as he kept seeing it in different places. "Jack Dangers from one of my favorite bands, Meat Beat Manifesto, was using it live. I remember

being mystified by it, wondering, 'What is this odd-looking battleship-gray box that has these wires poking out of it?' I remember him tweaking these crazy sounds out of it - so interesting.

"I did some more research and learned about Ben Burt, who is one of my favorite sound designers of all time. He's done the original Star Wars films, the Indiana Jones movies, and all those iconic films I grew up listening to. One of the most iconic sounds he designed was the sounds of R2-D2. I was just

fascinated by a person using his voice to control the synthesizer to sound so human.

"I was able to track a 2600 down at a pawn shop, and paid maybe a couple hundred dollars for it - the guy at the shop didn't even know what it was. It was pretty beat-up, though; I had it professionally cleaned, and it went through several thousand dollars' worth of repair and modification by Phil Cirocco at CMS. He had it for several months, replaced some parts, and also installed some modifications. I got

Richard Devine is an award-winning sound designer and electronic composer based in Los Angeles. His sounds are applied to console soundtracks worldwide, ranging from smart cars, and in leading edge areas

custom sync switches on the reverb - much larger than what creates a much deeper sound.

"I've been using it on many productions and soundtracks. It's a mainstay, and I know it so well that I can't even play it - even by modern synthesizer standards. It's like, 'That's a 2600 that's so unique, it's just this unique vintage wine.'"

From the original

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EARLY ANALOG

The birth of something new

In 1967, Katoh took note of an enthusiastic young engineer named Fumio Mieda, who proposed a new design for an organ - Korg's first keyboard. Mieda's prototype impressed Katoh, who had him refine the design for release in 1970, with input from organists as to how controls should be labeled and placed. Fifty units were sold by the recently renamed Keio Electronic Laboratory Corp. under the name KORG, for Keio Organ (and also for Katoh and Osanai).

Katoh recognized an opportunity to make Keio stand out: there were plenty of manufacturers building organs, but the KORG design could be turned into Japan's first synthesizer.

A year later, the miniKORG 700 made history, and subsequent models refined and added to its unique sonic character. The era of the Korg synthesizer had begun.



miniKORG 700 (1973) / miniKORG 700S (1974)

The first Korg monophonic synthesizer was originally intended to sit atop an organ; that's why its controls are situated under the keyboard. The Traveler dual filter is easy and intuitive to create interesting tones with, and the various functions are color-coded for quick reference.

Rather than rework the miniKORG's proven design, the 700S simply adds to it. The Effects section to the left of the keyboard offers a second detunable oscillator, extra sustain and vibrato controls, noise, and other features, in a self-contained section that can be removed from the signal patch with a single switch.

In 2021 the 700S was reissued with some extra features (p. 195).



770 (1976)

This is a highly competent monophonic synthesizer with two VCOs, ring modulation, and the classic Traveler dual filter. It's notable for being the last Korg mono synth with a Traveler, until the miniKORG 700FS reissue came out in 2020.



MaxiKorg 800DV (1974)

It's not quite accurate to call the MaxiKorg "two miniKORGs in one keyboard", but the majority of the original's signal path is in fact duplicated. It can be played diaphanically, or with the two layers combined for extremely flexible sound creation.

900PS Preset Synthesizer (1975)

This simple synthesizer provides a number of presets and basic expression controls. It's notable for the Touch Bar, a metal rail under the keyboard that activates one or more performance effects - note repeat, Forte (volume boost), pitch bend, vibrato, or portamento - by touching the bar with the thumb.



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Prädikat: Absolut empfehlenswert.

PATCH & TWEAK with KORG

... is an in-depth look at Korg's diverse collection of patchable synthesizers - the MS-20 mini, ARP 2600 M, and volca modular, as well as the SQ-1 and SQ-64 sequencers and the NTS-2 Oscilloscope.

- Packed with patching tips, and synthesis tricks
- 25+ interviews with artists and engineers
- Foreword by legendary composer and musician Kitaro
- 216 colorful pages printed on high-quality certified-ecofriendly paper

Explore the principles of semi-modular synthesis, and supercharge your creativity with dozens of tips, techniques, and patches. Synth novices, experienced professionals, Korg enthusiasts, and ARP lovers alike will find this book an essential resource.

25+ interviews with artists and engineers

Unlock the creativity and techniques of Pete Townshend, Jean-Michel Jarre, Richard Devine, Andrew Huang, Panic Girl, Legowelt, Red Means Recording, Maude Vòs, Kabuki, Moe Shop, Kristin Hsiao, TALsounds, Robby Stambler, ALOO, ChrisLody, Olga Prudey, On High Mountains, and Loopop. Meet the creative minds of Korg's great history, from Fumio Mieda and Junichi Ikeuchi to Tatsuya Takahashi and the new generation of Korg engineers, as well as the keepers of the ARP legacy: Dina Pearlman, David Friend, and David Mash.

Link: <https://bjooks.com/products/patch-tweak-with-korg>