

Regarding Synthesizers

By Mats Johansson, synthesizerist

The first time I laid my hands on a synthesizer was in 1971. I was doing my work experience at a music shop (Musikalen, in Halmstad), and one day, out of nowhere, a synthesizer by Korg appeared.

Looking back, I am not sure it really was a Korg. I don't think Korg's serial production had started as early as 1971, but nevertheless, it is my first recollection of the instrument that has followed me through thick and thin since then. It was certainly a big event in the shop. The staff spent a lot of time investigating and laughing at the new acquisition, particularly the pitch control and the modulation wheel.

I don't think anyone, in his or her wildest dreams, could imagine the importance this instrument would have on the development of music. The first synth in Halmstad had arrived with a bang.

I dare say that my encounter with the synthesizer was love at first sight. My first synthesizer, which I got in 1977, was a duo-polyphonic Korg DV800, a rather nasal thing.

It wasn't until 1981 that I had managed to get enough money together to buy my first Mini-moog. I vividly remember every precious moment as I unpacked it from its original box. The Mini-moog was built to last, being constructed with a quality that beats most synth brands by a mile. There were drawbacks, of course, but that was mostly instabilities on the technological side of things.

For many years, I tried to keep up with the new synthesizer developments, but it affected my monetary situation to the extent that I needed to find out what I really wanted to do with my synthesizers. Following that, my purchases were entirely motivated.

During the 1980's people divided music into synth pop and hard rock. This was a far too narrow way of separating tastes in music, which in turn created constant prejudices about the instrument's real soul. You had to explain the resources of the instrument time and again.

I remember being interviewed in 1981 by Hallandsposten's Jens Peterson (who now works at Aftonbladet). He attacked the synthesizer in an ironic, almost aggressive way, and described the instrument as "cold and insensitive". The synth – according to Peterson – was an instrument that would never survive its generation. I defended myself as well as I was able. Time proved him wrong, but then again he was a man of the times and was unable to see what was really happening.

Every now and then I come across something he has written, and it seems to me that he hasn't changed his mindset even today. I think there is a warm life in these machines, but luckily also a cold, chilly existence if you have the desire to create that kind of musical world.

I don't divide my instruments into analog or digital synths, and very rarely do I try to emulate a sound that already exists in real life. In this way, sound experiences are more than just dichotomies.

In 1986 I bought an Oberheim Xpander which I still like a lot. I really should work more with it, since it has something you can't find on new synthesizers. When someone asks me about a specific sound, frequently it is the Oberheim Xpander that has done the job.

My Yamaha CS 80 is also an amazing instrument. 100 kilos of steel and electronics that can easily dominate any soundscape.

The CS 80 is hard to understand properly, my estimate is that it takes approximately forty hours before you realize the possibilities of the instrument. With a little help from assorted effects, I

believe that the CS 80 can still be a flagship in the production line. You tend to get unwanted noise when you use hardware effects, but I turn a disadvantage into an advantage by adding more noise from the synthesizers internal system. This results in an artistic noise, which can – in the right context – produce a soft sand-like sound. Problem solved! At least for the engineer.

I have spent many hours thinking about what the ideal synthesizer should sound and look like. My conclusion this far is that it should have the twelve most useful controls readily available on the front panel (filter, attack, decay, release, sustain etc.) and six controls that the user can consign any functions to in real time.

With a setup like that, you have 95 % of the options you are most likely to use. It doesn't matter if the other 5 % are hidden in more obscure menus, since they can be used in a computer based editing program, which in turn could be linked to software compatible with Logic or Pro Tools for instance.

I think the Swedish brand Nord has succeeded well with their morph system, where a synth can go from the most beautiful, delicate ice-like sound to a distorted mayhem of noise in a split second via its pitch wheel.

The Nord Modular/G2 is a one-of-a-kind instrument today, and a very nice instrument to play and work with, especially if you like surprises. The owners of these instruments are incredibly active, and there is a serious and inspiring newsgroup at NordModular@code404.com

Even if the Nord synths have their limitations I think the company has found a personal way of making synthesizers, but they should try to find more imaginative and creative programmers to get the most out of the instrument. It takes a lot to be a professional synth programmer today, and

I understand the difficulties in showing versatility within this field. Perhaps that's why I have never been tempted to make a living creating sounds for other musicians. Persuading people on demand is not my thing.

I also use a Kurzweil K 2600, a synth which is universally strong. I wouldn't argue with anyone calling it the best synthesizer in the world. Integrated solutions (analog and digital sampling), design, built-in effects, line in and line outs and not least the userfriendliness makes it a perfect instrument for any musical style. A true monster synth in the best sense of the word.

The problem with the rapid development of synthesizers is the endless possibilities that create difficulties through the sheer amount of potential sounds. If I go to have a meal, the lunch menu tends to offer three alternatives. What if the restaurant all of a sudden offers me a thousand courses to choose from? Too many options can lead to anxiety attacks, and that is what may happen when you program complex synthesizers.

There is something to be said for limitations. You are forced to be a bit of an inventor to get interesting results. The synthesizer can be a very uninteresting instrument if it isn't performing a designed task in the musical environment. I am inclined to split the synth's workload into several parts when you record a piece of music. The last part, before the mix, is fairly abstract and aleatoric. A final treatment with anti-polish.

A piece of advice I usually give keyboard players who want to change their sound is to try to find cheap digital effects from the '80s or 90's, preferably with 8-bit resolution. For a small amount of money you get distinctive effects that will never

be produced again. Maybe that is just as well, but old digital effects can breathe new life into a tired old analog synth.

I often think about what separates people geographically, and I believe I can tell the difference between an American and a European synth programmer.

If you want to take it a step further, it is interesting to notice that France and Germany have always been pushing the envelope within the electronics industry, which in turn has made the synthesizer an instrument associated with architecture, art exhibitions and so on.

Sometimes I think that there wouldn't be any electronic instruments if it hadn't been for military research funds. There are many examples of artists with some knowledge of electronics getting their hands on military tools, doing weird things with it and turning that weirdness into organized sound.

Viewed through this perspective, you can at least see something good with the ridiculous military research that has been a mainstay within western civilization for far too long.

If you add all the painters, writers and film directors who have created art from the chaos that is war, you understand that there has always been a cultural leakage from the war machines. Some good things have come out of very bad things.

Here are some personal reflections on some synthesizers (and the odd keyboard):

Access Virus

A fairly new synth that I have had the opportunity to test drive lately. Many claim that this is the best hardware synth ever produced. Virus reminds me a lot of Waldorf, but for me, the Access synthesizer is more enjoyable and easier to use. But on the other hand, there is a strange clicking sound in the attack that bothers me, especially when using soft air-

sounds with delay. All of a sudden the click has a prominent role when repeated by the delay. Nevertheless, the Virus is a good synthesizer.

Akai

For me, Akai represents more of a format than a synthesizer or a sampler. I believe very few people today are considering buying a hardware sampler. Today's software samplers are incredible, but if you still want a hardware sampler, the Akai is my choice. I own an Akai S 1000 which is used in conjunction with a Simmons synth marimba and Kjell uses a Roland Octapad on "Celestial Vessel" that triggers sounds from an Akai KB 1000 if I remember correctly.

ARP

Unfortunately, I have never played on an ARP 2600, which is slightly unfortunate. I once stood in front of one, but it was broken. Since they are so hard to find these days, I'll probably never play one. If Moog had the best filters, ARP had definitely had the best oscillators.

EMU

I have used some EMU products, but in recent years I have found that software synths and samplers have replaced a lot of EMU's greatness. I have an EMU 3 in my rack and every time I look at it I think about the amount of money I paid for it.

Hammond

Once upon a time, I owned a L 100. I remember carrying it 70 % of the time and played it 30 % of the time. Even so, a Hammond is a Hammond. Not a synth, but considering the amount of software synths with Hammond sounds available, you could almost call the B 3 a synthesizer.

Hohner

The Hohner Clavinet D6 is a very special keyboard – not a synthesizer. I own one, and have recently taken it out of retirement, but since my Kurzweil and my

Logic software synths has very convincing clavinet sounds the D6 will probably go back to its usual resting place by the wall.

Korg

I have never really been impressed by the Korg machines. The M1 even made me avoid Korg.

Kurzweil

My experience of Kurzweil keyboards only stretch as far as the K 2000 and the K 2600, instruments that I consider minor masterpieces. Sadly, they get very worn as they age. I have thought about why this is, but I have found no answer.

Mellotron

I experienced the thin line between love and hate the first time I recorded with a Mellotron. Not a synth either, but it seems appropriate to mention it anyway. The instrument sounds dreadful to be honest and the keys are sluggish and stiff. I didn't so much play the instrument as put Mellotron sounds on tape. I would never pay more than 5 000 Skr (\approx € 550/\$ 670) for a functioning Mellotron. Nevertheless, it is a very unique instrument.

Moog

Moog synthesizers are cult objects of course, but in truth I feel that it is only the Mini-moog that is interesting. But what a synth that is! I haven't tried the big systems of the early '70s, but the were more or less stationary and what use were they anyway? I own two Mini-moogs with 8000-something and 13 000-something serial numbers respectively. The later model is a lot more dependable.

Nord

Very interesting synths. They may be a little thin-sounding, but they have a sound of their own and I think they have a place on the synth market. I have owned a NordLead 2, and currently play a

NordLead 3 and a Nord Modular. I like them a great deal.

Oberheim

Perhaps my favourite brand. A musical synth and gorgeous in every way. I also like their early 2- and 4-voice synths. I still happily use an Oberheim Xpander since there are so many things built into it that makes my heart leap with joy.

Roland

This company make good synthesizers, but, similarly to Korg, I am not really hooked on their products. Having said that, I used to own and play a Roland D50 for many years since there were some soundcards that featured quite a few good organ sounds.

Sequential Circuits

I used a Prophet 5 for some years, but unfortunately the keys kept falling off and you had to solder them on again. It happened far too often five minutes before a concert was due to start that I had to get the soldering iron out and open the synth because three keys had fallen off. One day I'd had enough and sold it. The Prophet 5 was a soft yet distinct and musical synth that was very personal. Regrettably, I have never tried the Prophet VS, that many hold in very high esteem.

Waldorf

A synth which doesn't suit me because I think it sounds a bit artificial. I have a Waldorf XT which I use occasionally when I can't come up with something on another synthesizer. It can do a lot of things, but it's hard to fit into the music. Others say the exact opposite.

Yamaha

It isn't easy to review Yamaha. I own a CP80 electric grand piano which is very special, and I am also a proud owner of a CS80 which has stood the test of time very well. I never really liked the DX7, and I think I have only used it on one occasion –

on “Das Junkerhaus” from *The Voyage*. It is currently laying in a corner awaiting repairs.

Every person should own at least one synthesizer!

Comments from Thomas Olsson, musicologist

As it turns out, the hack Jens Peterson (see Mats’ text) was not the only person disliking synthesizers 20 – 25 years ago. Here’s what Gentle Giant guitarist Gary Green had to say about them:

”I never have really liked them. I don’t like the impersonal thing about synthesizers, whatever sort they are. There doesn’t seem any room for a musician to play his own character into what he’s doing, which I always think is a shame.”

Gary Green, *International Musician and Recording World* November 1977, p. 23.

I have no idea what his take on synthesizers is today, but surprisingly many people still talk about the instrument in a similar way. How many times have you heard people contrasting the synthesizer with other instruments in terms of real – unreal?

The assumption that the synthesizer isn’t a proper instrument is still with us whether we like it or not. I think this stems from one aspect of the synthesizer’s history, that of trying to imitate other instruments.

The synth is constantly improving within this field, and every time a new keyboard is released, the reactions are: “Wow, it sounds exactly like a piano [or a string section, a trumpet or something else]”.

I recall being in a music shop in 1985 when a shop assistant was trying to convince a customer to buy a Yamaha DX 7. “Did you hear Madonna’s keyboard player at Live Aid? Did you hear the fantastic piano sounds? That was the DX

7.” I very much doubt that anyone would confuse any piano with a DX 7 today.

My students regard me with scepticism when I tell them that the synth horn sections you hear on albums from the 80’s really amazed people twenty years ago. Very few instruments date as quickly a synthesizer used unimaginatively.

Going back even further, we end up with much older inventions like the record player or the radio.

The musicians’ union were alarmed when these inventions came on the market for reasons that were easy to understand then, but that may seem strange to us today. Interestingly, the same arguments came back much later when the sampler was introduced to a wider audience. “It [the record player/the radio/the sampler] takes work opportunities from musicians.”

I think we are way past those arguments today. Instead, many composers of music of all styles use the synthesizer as a tool to realize or try ideas during the compositional process. Some parts may be performed by a synthesizer when the work is composed, other parts will not.

The other aspect of the synthesizer, which I find more interesting, is the instrument’s ability to create sounds that no other instrument can. And it is even better if the keyboard player takes time to work on his or her own sounds rather than rely on presets. There is an incredible amount of things you can do with a synthesizer if you work seriously with it.