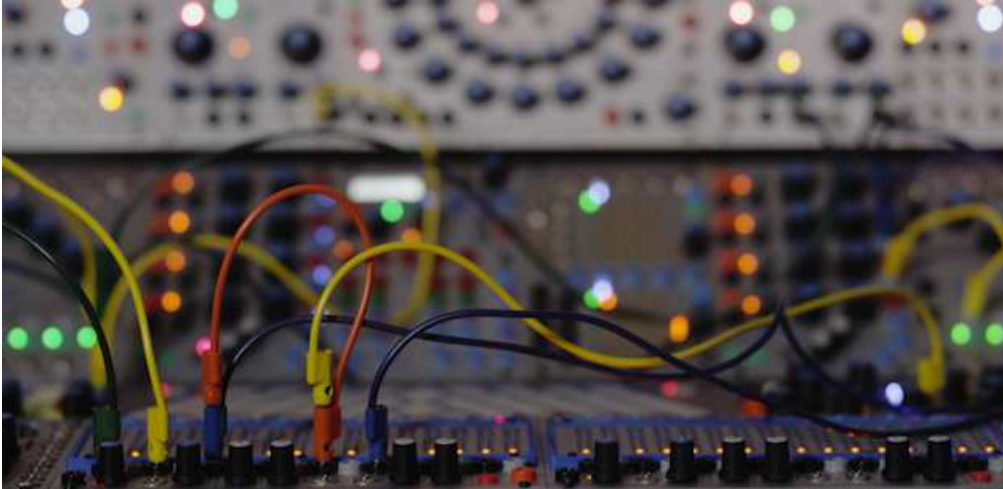


## DREAMING OF WIRES: THE RETURN OF MODULAR SYNTHS

Once considered virtually obsolete, modular synths have been one of the most surprising growth areas in music technology over the last decade. We speak to a group of top producers and module designers to discover why modular synthesis has risen from the dead, and to ask whether you're missing out if you don't get involved.



Buchla modular synth featured in 'I Dream Of Wires'

Since the birth of experimental electronic music, the history of music technology has been one of constant progression, relentless development and lightning-quick evolution.

For proof, look back 15 years and consider how primitive music software was in comparison to what's on offer today. Consider the explosion in mobile music-making tools sparked by Apple's iOS. Consider how hardware and software have plummeted in price over the course of the last few decades as manufacturers have developed newer, more powerful products at an alarming rate.

This unstoppable upward trend is interrupted by one significant anomaly: one of the biggest growth areas in electronic music equipment over the last decade has been the modular synthesiser market – a sector which had previously been on the decline since the late 1960s.

For those who are unclear on the terminology, let's first clarify what we mean here by *modular* synth. Broadly speaking, the term refers to any synthesis method which allows discrete modules – oscillators, filters, modulation sources – to be connected together in flexible, customisable ways. That includes software synths like Native Instruments' Reaktor and U-He's ACE, or digital hardware like the Clavia Nord Modular.

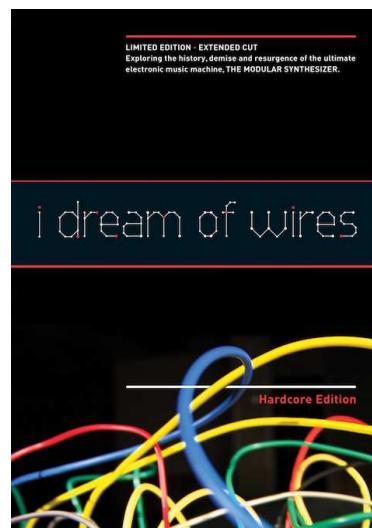
But, to the purists, software and semi-modular synths don't even register on the modular radar. The classic modular synth is a mess of patch cables, sockets and knobs. It's about control voltages, trigger signals and audio routed haphazardly around a bank of equipment which could fill an entire room. To many, a modular synth is an exclusively analogue affair, with a distinctly, *unashamedly*, retro flavour – although, as we'll see, that's now changing thanks to forward-thinking manufacturers introducing digital modules and systems to integrate modular equipment with modern, software-based studios.

Modular synthesis is still a niche market. Chances are you won't have seen one in your local music shop – unless you happen to live near a specialist like Schneiders Buero in Berlin (or its diminutive east London offshoot at Rough Trade), Switched On in Austin, Texas, or Analogue Haven in Pomona, California.

Statistically speaking, chances are your favourite artist doesn't use a modular synth either. But the climate is gradually changing as musicians and producers begin to realise that modular synths don't have to be overwhelmingly complex or expensive, and that the synthesis and signal processing options offered by modular systems are virtually impossible to achieve through any other means.

### I DREAM OF WIRES

Jason Amm has been releasing music as Solvent since



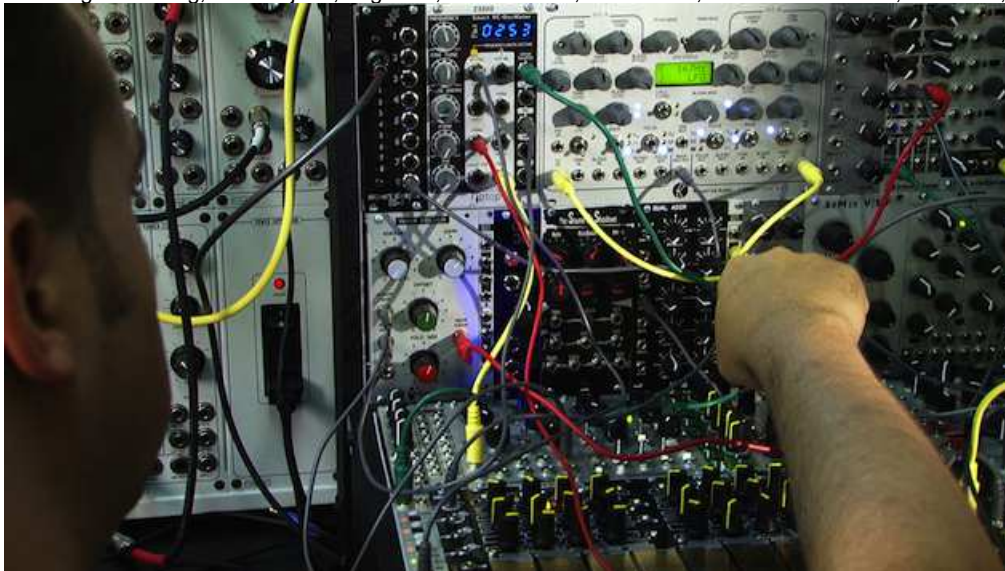
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1997 on labels including Ghostly International, Morr Music and his own Suction Records. But for the last three years Amm has been working on a very different project.

“I’ve been very much obsessed with electronic music and synthesisers for most of my life,” Amm explains. “So much so that I actually avoided getting into modular synthesisers for a long time, for fear that the obsession would lead to more tinkering and less producing. When the filmmaker Robert Fantinatto told me about his idea for a modular synth documentary, we had a discussion about my apprehension towards getting into modulators. Of course, I had been wanting to get into them all along, so he asked if I’d be interested in hosting the film, where it would be centred around my journey. Soon enough it really became a full-on collaboration.”

The result of Fantinatto and Amm’s efforts is *I Dream Of Wires*, a comprehensive history of the modular synthesiser. The film will be released as a special edition four-hour ‘hardcore edition’ cut on Blu-Ray and DVD in June, to be followed by an 85-minute theatrical release later in the year.

The documentary, named after the 1980 Gary Numan track, tells the story of the exponential growth of modular synthesis over the last decade and investigates the unique appeal of modular gear, with contributions from a host of well-known modular synth enthusiasts including Carl Craig, John Tejada, Legowelt, Vince Clarke, Deadmau5, James Holden and, of course, Numan himself.



Jason Amm with his Eurorack modular

## LIKE TAKING UP CRACK

To anyone thinking of taking the leap into modular synthesis, James Holden immediately offers a clear warning: “It can be moreish... like taking up crack.” Holden’s move into modular hardware stemmed from his first experiments with electronic music, working with the free Jeskola Buzzsoftware. “Buzz was pretty modular in how it worked,” he recalls. “And that way of visualising my audio chain just stuck. I got into the habit of only working with wonky, unreliably patched messes. The modular addiction comes about when you’re half way through patching something and realise you need *one more* oscillator. I’ve reached the end of that now as my studio has run out of shelves for racks to go on...”

Jeremy Greenspan of Canadian electronic duo Junior Boys tells a similar story of the irresistible lure of modular gear: “I started using them sparingly, and now I would say that I don’t go a day in the studio without using my modular in some capacity. Sometimes for almost every element of a track.”

Greenspan first discovered modulators through a chance visit to Analogue Haven in 2007. “We were touring the second Junior Boys album and we thought we’d go in and buy some Vermonaequipment,” Greenspan remembers. “When we got there we were completely swept away by the possibilities of Eurorack, which we’d only just heard small things about. Both Matt and I walked out with full cases that day. At the time there were only a few companies making stuff, so my excitement level grew with the amount of new companies making more and more stuff. I was especially excited by companies who were designing modules that were influenced by companies like Buchla and Serge, insofar as they were slightly leftfield of more traditional synthesis.”



Dominic Butler's live setup

Dominic Butler of London-based DFA signees Factory Floor explains how he gradually moved into modulators through vintage analogue synths: "A friend of mine had an SH-101 in his bedsit and we used to get completely absorbed in playing about with it. The arpeggio function seemed to fit well with the amount of weed we were smoking! I guess I was always looking for a way to open it up and push it some more.

"I was aware of modular synths through listening to artists like Morton Subotnick and Chris Carter. There was one record that I couldn't stop playing called 'Her Blade' by Eazy Teeth. I knew it was done on a Serge modular but I just saw them as unobtainable, financially out of my league.

"The first module I bought was a Doepfer A-111-5, which was fun but I soon sold it and started buying individual modules. I think when I discovered Make Noise and 4ms was when things started getting really interesting. Their design and usability fitted perfectly with the way I approach making music."



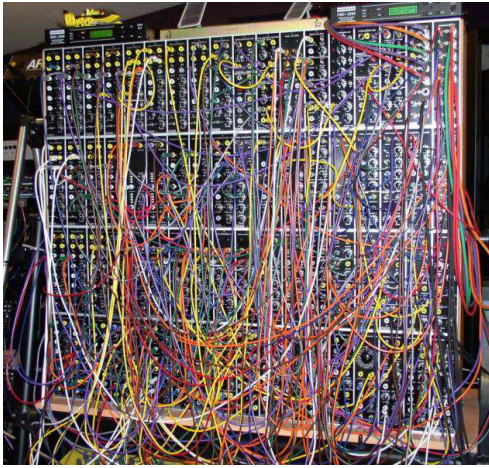
## BACK FROM THE DEAD

Modular synths predate their compact, fixed-architecture cousins by over a decade, having first been commercially manufactured by Bob Moog and Don Buchla in 1963, seven years before the release of the Minimoog. Even Roland, who entered the synth market a few years after the introduction of the Minimoog, produced the wonderful System 700 and System 100m modulators before switching their attention solely to fixed-architecture synths.

Moog and Roland's withdrawal from modular synth production – in 1981 and 1984 respectively – was emblematic of a larger shift in electronic music trends which could be traced back to the introduction of the Minimoog in 1970: musicians were increasingly turning to smaller, more compact and cheaper fixed-architecture synths. By the 90s, modular synths were widely considered an archaic relic of a bygone era, esoteric and interesting but barely relevant to modern musicians.

Amm explains that the modular synth resurgence began as a vintage revival targeted at a very small niche market: "Vintage modular systems started becoming more scarce and sought-after, so companies like Modcan and Doepfer introduced new modular systems in the 90s to meet the demand. To start they were mainly catering to older people who had probably lusted after Moog modulators in the 70s, so what they were offering were basically recreations of classic subtractive analogue synthesis modular systems."





Monster Modcan

Modcan's Bruce Duncan began building modular synth equipment as a hobby in 1994 when he experienced a slow-down in his day job building prototype models for industrial designers. "I had always been fascinated with synthesizers and had owned many of the early polyphonic models from the late 70s onward," he explains. "My first modular was a Serge, circa 1980, which I bought locally second-hand. It had been assembled from a kit. What got me started building was a need to expand the Serge. The filters and envelopes were lacking in my system and the cost for new Serge panels was beyond my financial capabilities at the time. I built a few prototypes and enjoyed the process so much I decided that it could become a fun secondary job for me when regular day job was slow.

"I met a guy who was a fellow synth nerd at a party and he knew a bit about HTML and helped me put together a very basic website which became modcan.com. I posted some of the early modules and started promoting my work on the Analogue Haven forum. Before long people were buying modules to augment their Serges and as free-standing systems once I had enough modules to cover all the basics. I had a friend that had some under-employed buddies and they built the modules for me in their bedrooms. I would drive over to their place and drop off the parts, boards and panels every time I received an order.

"It was very low production from about 1996 to 2004. Maybe 100 modules a year, maximum. I was still working in the model business and was happy to keep it all small scale as it really was more of a hobby at that time. In 2004 I received a large commission for a very big system and I was fed up with my job so I decided it was time to see if I could make synth building a full-time occupation. I rented a warehouse space near my home in the east end of Toronto and away I went. Since that time it's been a six-day-a-week job with barely a break."

### MODULARS GO INDIE

While larger companies like Modcan and Doepfer led the way in revitalising the modular synth market during the late 1990s, they've since been joined by a vast cottage industry of independent manufacturers. Amm takes up the story: "The real resurgence started about six or seven years ago and has really ramped up in the last couple of years – that's basically when a lot of new, one-person start-up companies began popping up with their own modules, mainly in Doepfer-style Eurorack format. This Eurorack format is smaller and typically cheaper than modular systems of the past, so it really caught on.

"I think this is when it started to get really interesting, because it's no longer all about vintage recreations – there's that, but everything else has been thrown in too – digital, analogue, valves, sampling, complex sequencing, interfacing between the modular and the computer DAW environment, just about anything you can think of. The increase in modular activity is really a result of the reciprocal relationship between the modular synthesizer manufacturers and their users; the users crave more and more innovative sounds and approaches to synthesis, and there seems to be no shortage of new manufacturers who thrive on the challenge to contribute something unique to the pot. So I think a huge factor for the modular resurgence is fuelled by the fact that the internet allows this exchange of ideas and information.

"I think another significant reason has to do with the fact that electronic music is so common now, and people are burned out on hearing run-of-the-mill synth sounds, because they're everywhere. The modular offers a sonic alternative to run-of-the-mill!"

Dominic Butler of Factory Floor performing live at Tate Modern

Danjel van Tijn runs [Intellijel Designs](#), one of a new breed of modular synth companies creating highly original, forward-thinking modules. For van Tijn, the urge to create something new was spurred by an early discovery of Richard D James: "When I was about 12 or 13 I started

**“ELECTRONIC MUSIC IS SO COMMON NOW, AND PEOPLE ARE BURNED OUT ON HEARING RUN-OF-THE-MILL SYNTH SOUNDS.”**

listening to a lot of electronic music, including AFX, and I heard all these wild stories about him building his own samplers and synths. It just seemed so impressive that not only was he making this incredible music but he was also creating his own unique tools to help do so.”



Intellijel Korgasmatron II

Years later, having enrolled in university to study electronic engineering with a view to pursuing a career in music technology, he realised that maybe he'd been misled all along. "Once I was in university and buried in what felt like purely theoretical studies I realised that AFX must have been exaggerating, because it was all way too complex – especially something like a sampler – to do on your own without a lot of disciplined study."

Following his studies, van Tijn briefly worked for IVL, a company which manufactured products for Digitech and owned the Electrix and TC-Helicon brands. Returning to college to study recording, he spent a few years working in various music tech jobs. Like so many manufacturers, van Tijn began building modules for himself as a hobby, having been introduced to modulators by his friend (and future Intellijel employee) Haven Siguenza. "I really had no intention to start my own modular company. The first product I put out was supposed to be a DIY kit, but so many people wanted a fully built module instead of a kit that I had to look at ways to get things manufactured and ended up doing a small batch of proper modules. Eurorack really started to explode and things just seemed to really click for me. If you had asked me as a teenager what my dream job would be it would have been what I am doing now."

## BENEFITS OF MODULAR

The main appeal of modular synths to artists is obvious: their unrivalled flexibility makes them the most versatile form of synthesiser imaginable. Not happy with the tone of your filter? Change it for another one. Need more modulation sources? No problem – there are hundreds of different LFOs and envelope generators available and you can have as many as you like in one system.

What's more easily overlooked is the way that modular equipment forces you to work differently to a traditional fixed-architecture synth. Of course, there are no presets; recalling all but the most basic patches is a laborious and inaccurate process. But more importantly there are implications for the way you use the synth, the way you make music and the results you get. Amm suggests that this unique characteristic is one of the most appealing features of modulators: "I think that most, if not all, modular users enjoy the fact that the instrument is constantly challenging them to think about every aspect of the sound. That's something you don't get out of most self-contained synths, especially ones that have patch storage and presets."

James Holden agrees: "Back when I was using modular software I came up with this method of making feedback systems – trying to breathe chaos and unpredictability into the instruments I built – and the modular is even more perfect for that. I use it alongside Max/MSP and Expert

**“I WANT THAT EXPERIENCE OF PLAYING SOMETHING UNRELIABLE AND PRONE TO UNPLEASANT SQUEALS AND SQUEAKS.”**

Sleepers' CV plugins now so that the computer-modular system is just one thing, designed to be expressive like a real instrument – I learned violin so I want that experience of playing something unreliable and prone to unpleasant squeals and squeaks. Mostly Max For Live now handles generative and chance-based MIDI stuff, wonky sequencers and a few extra LFOs and envelopes. Everything else happens in the modular. My favourite modules are the Make Noise QMMG and a pair of Maths, by a long way, then I guess the Analogue Systems RS95E oscillators and the Metasonix tube bandpass are totally indispensable to me.

“Quite often I'm actually just patching a polysynth with one or two minor deliberate errors – wonky voice allocation or random cross-modulation.” But that shouldn't be taken to mean that it's a random process of taking wild shots in the dark until something works. “It usually starts from an idea of what I want to try rather than serendipitous experimentation,” he adds.



A bank of priceless original Moog modular equipment

**For Jeremy Greenspan, there are numerous ways in which modular synths aid his creative process: “For me the appeal is that there are fewer decisions being made for you by the instrument maker. There are no presets. No two modular systems are the same. The sounds are often unique but, more importantly for me, using a modular synth often takes your preconceived planning out of the equation. Modular synths are usually unpredictable, the results of patching are also unpredictable, so you usually get a pattern, a sound, a sequence or rhythm that you didn't predict. Writing with modulators is usually more about capturing a moment. A sort of synchronistic moment happens when you write. It's totally unique. Modular synths can take your ego out of the equation – which, in music, is a blessing.”**

One of the most important factors in determining why modular synths are so highly praised by artists and producers is that most of the companies creating modular equipment are owned, run and staffed by musicians. Since modular synth manufacturers tend to make music themselves, it's only logical that they should focus on musicians' needs when designing new products.

“I was a musician before I was an electronics designer, and always will be,” says Stacy Gaudreau of hexinverter.net. “Generally speaking, my module creations arise from personal needs. I'm usually coming up with the most ideas for new modules when I'm spending a lot of time with my own modular system and discovering needs for new modules. sympleSEQ, for example was thought of because I was once a beginner DIYer and wanted to build a sequencer, but was intimidated by the parts count and wiring complexity. So, I developed sympleSEQ so that other beginners could have an easier time of things.”

The design process for Intellijel is similar. “For many years I've been producing electronic music, mainly deep techno and ambient stuff,” says van Tijn. “I'm always considering what I would personally want to use to create music that has a lot of rhythmic structure and melody. As the company has been growing I've had the good fortune to connect directly with quite a few musicians I really admire and am influenced by and I carefully listen to any feedback they give us on our designs.”

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## COTTAGE INDUSTRY

Stacy Gaudreau's one-man business, [hexinverter.net](http://hexinverter.net), is his primary source of income. Entirely self-taught when he started the company, he now uses the profits from sales of modules and DIY kits to fund his electronics studies at college in Manitoba, Canada. "I have always been incredibly fascinated with electronics," he explains. "As a child, I would spend a lot of time taking apart electronics and examining inside of them. Music – and especially electronic music – has always been an enormous part of my life, so it was no surprise that my interests eventually collided. As soon as I was able to have enough of my own space to build a small lab, I began to experiment with electronics and learn how to design circuits for musical synthesis. I'm a devoted do-it-yourselfer."



hexinverter.net's sympleSEQ kit

Gaudreau's experience is similar to dozens of other small-scale designers and manufacturers. At present, modular synth manufacturing isn't generally a cut-throat industry of money-motivated businessmen looking for ways to crush the competition. "Generally speaking, the modular synth industry is full of incredibly creative people. The community is also very tight-knit and so there are a lot of warm fuzzy feelings all around," says Gaudreau. "Just go to [anymuffwiggler.com](http://anymuffwiggler.com) DIY forum thread where someone's developing a project and you'll see just how appreciative the consumers of DIY projects are to have designers selling circuit boards and kits for their designs. The modular synthesis industry is incredibly inviting of new ideas and start-ups. I find that there's a lot less aggression in this market, but there are exceptions to that rule. Any time there's money to be made, you'll always have *some* crooked individual trying to spoil the fun for everyone else. Thankfully the community is so tight-knit and supportive of one another that cruel people are generally weeded out fairly quickly."

Modcan's Bruce Duncan welcomes the increased competition from small companies, which he attributes to the rise of Eurorack and increased interest in electronic music in America. "The scene has definitely transformed from being a very esoteric hobby populated by a few well-heeled 'in the know' participants into a much more popular and wide spread phenomenon," he tells us. "The new makers definitely keep me on my toes. Especially now that I'm also doing Eurorack modules. It is still a relatively small niche market, though. While the community's still growing, nobody building modulars is doing it at a level compared with the early electric guitar manufacturers, for example."

With so much choice on offer, Daniel van Tijn explains that from a manufacturer's point of view it's important to offer something different to the competition: "Right now there are about 80 companies and over 700 Eurorack modules, so you definitely need some way to stand out. At Intellijel we like the idea of modules that have a foundation capable of clean and precise sound but can be manipulated to go well beyond that state. You can always make a clean sound dirty but it's difficult to do the opposite. Our modules cover a very broad range of synthesis techniques and sounds. We have some modules that are clearly influenced by classic designs but we always try to modernise and improve on what's already been done. We're also always looking at new things we can do but at the end of the day it's extremely important that the resultant module is highly musical and useful and not just a novelty."

## MODULAR PERSONALITIES

The inherent challenge of modular synths makes them a very different proposition to a conventional compact synth, with fixed signal routing and a limited number of options. Is there a certain personality type that gets drawn to that kind of approach? Through his role as producer of *I Dream Of Wires*, Jason Amm has met hundreds of modular synth enthusiasts. He suggests that there are a handful of different characteristics which might draw musicians to modular gear, but that there is one common theme: "Across the board, I would say that modular synthesisers attract obsessive – or at least very passionate – people. You have to understand something about synthesis to even get a sound out of a modular synth, and they demand a lot of knowledge to get the best out of them, so I think it's also fair to say that all modular synthesiser users possess a lot of intelligence."

**“RIGHT NOW THERE ARE ABOUT 80 COMPANIES AND OVER 700 EURORACK MODULES, SO YOU DEFINITELY NEED SOME WAY TO STAND OUT.”**



Modular synths reward users who think outside the box. *What if I patched that signal over there? What if I hooked this module up to that one?* Jeremy Greenspan suggests that musicians who take a methodical, almost analytical approach to making music might be best suited to working with modulars: "I think the tendency is to want to use everything right away. But you often get the most out of it if you learn modules one at a time. Get excited by each module's capabilities. Figure out its surplus, what it can achieve above and beyond what it was intended to do. This is often easier with modular than with traditional synths, because often the designers themselves don't have fixed ideas about a module's specific applications."

### IN THE BOX

Modular synths can be entirely self-contained affairs, with sequencers and effects built into the setup alongside synth elements, but not everyone wants to work in such a resolutely analogue, hardware-focussed way. But that retro approach isn't the only option. Thanks to a handful of companies developing hybrid systems which combine analogue hardware with modern software control, it's now relatively easy to integrate modular equipment with more contemporary, computer-based music-making methods.



Expert Sleepers' ES-3 module

“ACROSS THE BOARD, I WOULD SAY THAT MODULAR SYNTHES ATTRACT OBSESSIVE PEOPLE.”

Andrew Ostler runs Expert Sleepers, a small company pioneering ground-breaking DAW control of analogue equipment with its Silent Way software and a range of interface modules. Both Holden and Butler cite Silent Way as a key element in their setup. Ostler explains the concept: "Modulars can be huge fun on their own, but if you want to combine them with a DAW at any level, from basic tempo sync to full-blown two-way integration, I believe the software approach that Silent Way offers is the way forward. The goal of Silent Way, and the Expert Sleepers modules, is to provide a much tighter level of integration between DAW and synth than has ever been possible using, say, a traditional MIDI/CV converter."

Ostler explains that the Silent Way approach offers more accurate timing than MIDI and allows the DAW to become a perfectly integrated element of the synth itself: "You can create tempo-synced LFOs, envelopes, sequencers – all in perfect time and under familiar software control via parameter automation. Of course, you can take it further. Why limit the DAW to producing CVs? It can receive them too – just as it can receive audio – for recording, slicing, looping or applying effects. So you can use a software module as just another module in the synth, and so you can control software instruments – and indeed the DAW itself – with CVs from the modular."

Dominic Butler agrees with Ostler's assessment of the benefits of this approach: "The ES-3 module has opened up the live possibilities of modular synths massively. I used to have to drag a Doepfer MAQ16 around with me on stage. Whilst playing one song I'd be figuring out how to program the next one, which could be a complete nightmare. Most of the stuff I do in Factory Floor is based around a heavy arp or bassline, so Silent Way plus Ableton is like having the world's biggest slash smallest sequencer!"

### MODULAR MUSIC

For all their clearly apparent sonic versatility, one of the biggest criticisms of modular synths is that users spend so much time tweaking sounds and experimenting with different patches that they end up forgetting the main point of the synth: to make music.



Perhaps the ultimate rebuttal of this criticism comes from Amm himself, who set himself the challenge of creating the soundtrack for *I Dream Of Wires* from scratch using nothing but modular synths. "When it was decided that I was to become a part of the film, I suggested that my goal should be to come out of this with an all-modular soundtrack for the film," he recalls. "My music is very melodic and structured so I wanted to make sure that the soundtrack was true to that, while also showcasing some new sounds and synthesis methods that only the modular can offer.

"I was definitely worried that my obsessive nature could lead to me becoming a full-time fiddler if I were to get a modular, so completing this album was an important point to my story in the film. Honestly it is a bit of a challenge; I get a lot of satisfaction out of completing a song, but it does usually feel like work getting it to that finished song stage. On the other hand, tinkering on the modular is a bit like a drug for me, it's like a trance or meditation, and sometimes I want to just disappear into that hole for days and not have to think about turning any of it into a song. In a way I sometimes feel jealous of all of those modular users whose only aspiration is to make weird noises and maybe upload that to YouTube – for anyone who is obsessed with the sound of synthesisers, the tinkering is usually the most exciting part."

**“TINKERING ON THE MODULAR IS A BIT LIKE A DRUG FOR ME. IT'S LIKE A TRANCE OR MEDITATION.”**



## **BUYER BEWARE**

Dominic Butler understands the challenge of staying focussed when using modular equipment better than most thanks to his live performances with *Factory Floor*. His use of modular gear in a real-world situation, interacting with the other members of the band, has taught him the best approach to getting the most from it. "I think if people have a tendency to noodle they will noodle," he explains. "Whether that's with a modular or a guitar and a stack of pedals. Don't blame the tools! With *Factory Floor*, the modular is always underpinned with a strong arpeggio and rhythm. I'm loving the Tiptop Audio 808 and 909 modules driven by the 4ms and Rebel Tech stuff then processed with an Optomix and an Echophon. Unlimited fun! Even when the sets drift off into hectic chaotic territories they always seem to get pulled back into something comprehensible. It's always good to go with instinct in a live situation and leave the indulgent side at home."

Similar warnings are reiterated by almost all of the artists who contributed to this feature. The near-unanimous consensus is that modular synthesis isn't for everyone, and that anyone with an interest in dipping a toe into the waters of modular gear should think long and hard before taking the plunge. James Holden is the most forthright: "I'd have a careful think about whether it's for you. Modularity suit whacked-out music. If you want it for fat dubstep bass I'd honestly just stick to NI plugins. I had a friend of a friend email me: 'So I've got this oscillator and this filter but I can't make a noise. What am I meant to do?' The answer? 'Sell it on eBay, mate...'"

Jeremy Greenspan explains why fixed-architecture synths still retain so much appeal despite the versatility of modulators: "They work. The best of them – the 'big boy synths' like the ARP Odyssey, Minimoog and Jupiter-8 – are very flexible, but you can rely on them to

function in a specific way. And if you're after a sound that you know how to get, or if you're working on a track where you want to get something happening quick, or be able to save, then you're going to want to use a fixed-architecture synth."

The lone voice of dissent comes from techno stalwart Kirk Degiorgio, who espoused the benefits of modular synths at length when we interviewed him last month. Degiorgio insists that a modular setup is the absolute best way to learn about analogue synthesis, and encourages anyone and everyone to give it a go. "I think it's a golden age for analogue synths right now," he tells us. "And most of it's in the modular world. I think once anyone's used a small modular system with the basic building blocks, you can give them any analogue synth, no matter how complex the routing, and they'll find their way around it really quickly. I get asked a lot by up-and-coming artists what keyboard they should get. Don't. Just buy a modular system. Once you learn it you'll be able to use any analogue synthesiser out there."



### WHERE NEXT?

So, if modular synths are back for good, that leaves only one question: where do they go from here? With so many manufacturers competing to invent innovative new products, the signs are good for future development of all modular synth formats.

Modcan's Bruce Duncan believes that the modular market is stronger than ever, but warns that progression is necessary to avoid stagnation: "I see a lot of cool innovation coming from the new crop of builders and while I think a lot of them are simply polishing old concepts a lot of them are also doing new things that I never would have thought of myself. I still see some room for new ideas but it's getting harder to be completely original with such a populated field. My hope is that buyer fatigue doesn't set in because I think the market could become saturated with all the product that's now available. Hopefully not for a while yet, though."

For hexinverter.net's Stacy Gaudreau, predicting the future of the modular synth scene is virtually impossible: "Module technologies are evolving constantly and at an alarming rate – it seems designers are inventing new ways to create sounds all the time. I feel like predicting what will happen is almost impossible since it's such a limitless platform for new creative inventions. I'm very interested to see what new technologies in the electronics world will add to modulars – things like carbon nanotubes and atomic computing could mean very different creative tools for musicians and I'm anxious to see where these technological advancements carry us."

"I feel like modulars are already the ultimate sound design machine. The fact that they're now becoming so popular is awesome. I hope it stays around for a long time."

James Holden, Jeremy Greenspan, Dominic Butler, Bruce Duncan, Stacy Gaudreau and Danjel van Tijn all appear in *I Dream Of Wires*. The Hardcore Edition Blu-Ray/2-DVD of the film is available to pre-order until April 30th, priced from \$35.

<http://www.attackmagazine.com/features/dreaming-of-wires-the-return-of-modular-synths/>

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