David Vorhaus and Kaleidophon Studio

by **David Ellis**

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David Vorhaus' Kaleidophon Studio is situated on the top floor of a house in busy Camden High Street, London and the control room window commands a panorama of Camden Town rooftops. A suitably elevated position, you might think, for a studio specialising in electronic music, but no pie in the sky. Apart from the BBC Radiophonic Workshop, Kaleidophon is really the only studio dedicated to electronic music in London. In fact, the studio stems from "radiophonic" origins, as David explained to me: 'after doing physics and psychology at Aberdeen, I came to London to do my postgraduate degree and also played double bass in the Morley College orchestra. By chance I went to a lecture on electronic music at Morley in 1968 given by Brian Hodgson, Delia Derbyshire and Peter Zinovieff. It seemed to me that they really knew what they were talking about and convinced me that that was what I should be

doing. Brian and Delia were both connected with the Radiophonic Workshop and we decided to set up this studio together.'

David Vorhaus with his Kaleidophon

The studio now contains a fascinating array of gear, ranging from weird and wonderful Vorhaus designs to the latest computer technology in the form of the Fairlight CMI, which David says he bought as an investment as well as believing it to be the instrument of the future. In fact, his model was the first in the country, but, as that was only six months ago, he still considers himself a beginner when it comes to using it. Even so, he has already produced an Alka-Seltzer commercial entirely on the Fairlight and is currently working on an all-Fairlight album. His track record is pretty impressive and includes one album on the Island label ('Electric Storm'/White Noise 1, 1969) which sold 100,000 and proved to be one of the most long-lived records from that company, an album on the Virgin label ('Concerto for Synthesiser'/White Noise 2, 1974), and a recent release on the Pulse label ('Re-entry'/White Noise 3, 1980).

I wondered why there had been such large gaps between releases — David certainly couldn't be accused of jumping on the bandwagon! 'Yes, for all of them there have been five-year gaps and it was really to give the field a chance to change. What I really don't want to do with White Noise is to produce a new album just like the previous one. I like to feel that I'm exploring the musical possibilities of the latest technology.'

David describes his music as having a strong element derived from 20th century classical music, in particular, composers like Stravinsky, Bartok and Shostakovich, but there's always an underlying movement derived from rock and jazz, or what David calls 'the Black influence'.

I asked him about the significance of the album titles, White Noise 1, 2 and 3. 'My first album was one of the first electronic albums in this country and it's really a matter of continuity calling them White Noise albums. The second was really the first album devoted to synthesisers, and a heavier work, probably suited to the instrument in the sense that synthesisers then couldn't get nearly as rich sounds as with earlier electronic techniques.' Other activities have included writing library music for Keith Prowse Music, which, as well as

paying the rent (an honest man, David!), he also finds very enjoyable. 'It provides a very welcome contrast to the tension of doing solo work,' said David, 'where it's often rather difficult to find the necessary self-discipline in the initial stages of putting it together.'

As well as Kaleidophon being David's personal studio, it is also thrown open to members of the public wishing to avail themselves of his unique expertise. An outside engineer would doubtless be somewhat confused by the unusual mixing desk (for instance, all EQ is performed by a separate EQ bank rather than having individual EQ in each input module), but there's nothing lacking in the quality of its output, and at £22 per hour this must be the cheapest 24-track studio anywhere!

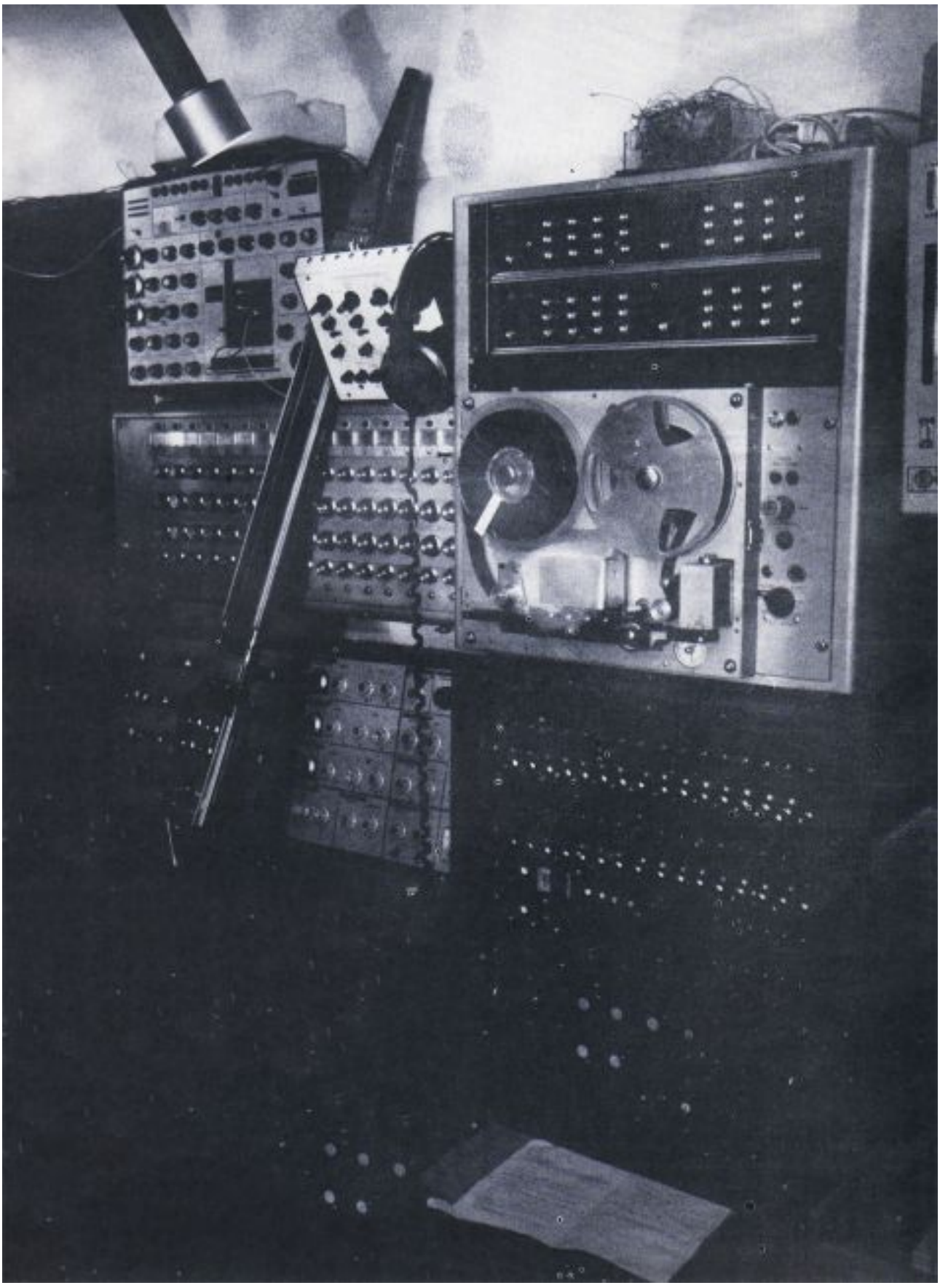
Considering his experience of working with groups and musicians from the other side of the mixing desk, I asked him what he thought of the state of music-making in this country. 'This country was once the tops for exploring new avenues in music, and though there are still a lot of people doing this in their own ways, it's no longer the

mainstream. In certain respects we're going through the Dark Ages in music. All one can really hope is that, to put it in economic terms, the slump is bottoming-out.'

I've noticed that a number of the more experimental musicians, Brian Eno, for instance, are forced to leave Britain to seek support for their creative work elsewhere. 'To a certain extent that's true; Britain is a bad place for creative work, but you've got to watch for the snag in thinking that moving is the answer to the problem.' We both agreed that the 'problem' lay in the Catch 22 situation facing the contemporary creative artist: if there's no demand for left of main stream music, then record companies won't release it; if there's no opportunity for release of such material, creativity will be starved (literally) and so there'll be nothing to demand in the first place.

'I think that good musicians are still as good as ever, but I think they will generally be concerned with playing their instruments rather than high tech. Actually, amongst the musicians I respect, none of them are particularly technology-conscious. People like Fred Frith, for instance. And people that are very technology-conscious, particularly consumer commodity technology-conscious, don't seem able to produce good music.'

I wondered whether he thought that the development of electronic music was looking rosier than other forms. 'No, but as far as the hardware is concerned things are happening faster than ever before, particularly in the digital field. As far as the actual technology is concerned we're really just leaping ahead, but we've still got to learn to walk and run.'

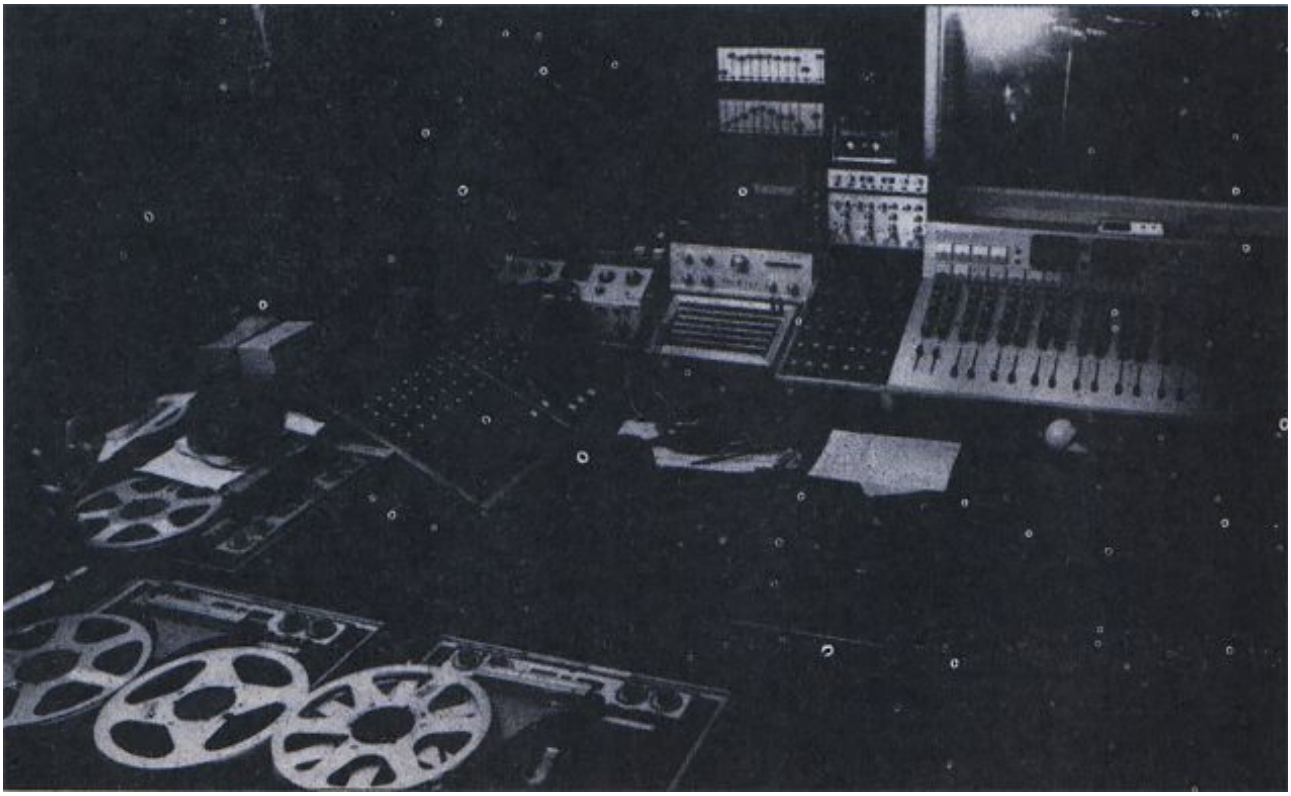


Mind you, on the production side, it must be a good thing if the mystique of 'studios' can be eradicated by high technology allowing

the equivalent of studio sophistication in your own home. 'Yes, well it already is as compared with ten years ago and in some respects this is going ahead too fast. It's really a matter of the standard of musicianship. It's all very well bringing it into the home, but you've got to study your instruments in quite a lot of detail before you're going to be able to do anything usefully. If you think of a rich language with a lot of words, then there's a lot of learning to do before you're able to express yourself in it. The only way you can learn something quickly is if you restrict yourself to a 20-word language. This is the point about bringing studio-quality music into the home; the technology is one thing, it's just like playing records, but, as far as playing music is going to go, it's not nearly as important as the actual standard of musicianship and composition. The new Lowrey organ is the best demonstration of this. After all, you can buy this instrument for exactly the same price as the Fairlight (£15,000) and it brings the equivalent of a big orchestra right into your home which you can play and get a big brass sound, note-perfect, without knowing a damn thing! The technology is already there, but it almost makes musicianship redundant. I mean, musicians might as well split and leave this planet.'

Whilst all that's true, I think such technology will ultimately provide at an economic price the potential for electronic music-making at the fingertips of a vast number of people. Whilst, at present, commercial music occupies the listening time of 95% of the public, paradoxically such music puts musicianship to the bottom of the list. If more and more people actually start to create music rather than just passively soaking it up, then perhaps commercial music will be forced to reappraise its stance on musicianship and the public will demand more from their music than instant aural gratification.

'Well, exactly. The technology can provide instant gratification but it isn't the way to use it. Somehow we've got to think of a way of reversing the regression that seems to be happening to music.'



Returning to present-day technology, aside from such commercial standards as the Prophet 5 and MiniMoog, Kaleidophon also boasts the very first VCS3 synthesiser (serial no. 001) made by EMS (Peter Zinovieff's company), now getting on for ten-years-old and still as reliable as ever. That's British workmanship for you... However, it's for two of his own designs that the name of David Vorhaus is most

likely to ring bells in any reader's head. A few years back, he and his studio were featured in a BBC TV programme on the development of electronic music. Whilst most of the programme did little more than reveal the cameraman's fascination for tinkling ivories in the same way as coloured liquids dripping into and out of test-tubes in popular science programmes, the undoubted high spot was David demonstrating two inventions, the 'Maniac' and the 'Kaleidophon' (from which the studio gets its name). Maniac stands for 'Multi-phasic ANalogue InterActive Chro-mataphonic' and, like its title, is an impressive piece of hardware resplendent with a multitude of pots and LED's. Essentially, the device is a multiple sequencer with a maximum sequence length of 64 steps, each of which initiates two control voltages and therefore provides duophonic operation. Remember, that's each step; the entire Maniac can actually play up to six synthesisers at the same time, and all in counterpoint with each other! The long sequence can be programmed to divide off into factors of 64, e.g. 4 x 16. Each of these shorter sequences can be used to trigger the others by using various control options such as the 'end out' of one triggering the clock of another. One of its most endearing features is a switch marked 'Time Warp Navigator' which automatically syncs any sequence running over a 16-note 4/4 bar length by triggering reset when the sequences are used in their interactive capacity, or 'jamming together', as David puts it!

The Kaleidophon, on the other hand, is specifically an instrument for musicians rather than the knob-pusher, and offers remarkably flexible control of pitch and timbre in an ergonomically-pleasing package.

'I planned with the Kaleidophon to make an instrument that one could learn to play quickly very well and be a sort of virtuoso. It's turned out to be a much better instrument, expression-wise, than I originally conceived, but it's a failure in its initial purpose as something that would be quick to learn. I guess this shows up a more general principle that with anything that is really extensive and expressive it takes a long time to learn the language.'

The Kaleidophon looks something like some of the more outrageous guitar designs, at least as far as the neck is concerned. The technique of pitch selection is borrowed from the guitar, which is sensible, but the 'strings' in this case are made of conductive plastic rather than gut or metal. The model shortly to be in production (and E&MM have been promised the first off the production line for review!) uses four strings which can be tuned in fourths (as with electric bass or double bass) or fifths (as with other stringed instruments). With a useful range of 6 octaves and monophonic operation, the Kaleidophon is designed to be used as a lead instrument with much of its extraordinary versatility derived from various pitch selection options and joystick timbre control.

'I think one thing that'll have to be emphasised about the Kaleidophon is that it's not exactly the same as a bass or anything else. The fretless bass is perhaps the most similar, but you can't expect to just pick it up and play it like a virtuoso. It's a big advantage being a string player, as the fingering in principle is the same, but the action is totally different.'

The Kaleidophon now has an international reputation, for in 1979 it won one of three prizes awarded for new electronic instruments at the Ars Electronica festival held in Linz, Austria. The other two prizes went to the Lyricon and the Fairlight CMI, so it's in good company!

Finally, I asked David about his future plans. 'Well, I'm planning to move to Australia for half of the year, but also planning to stay here and run the studio. I'm planning immediately to explore the Fairlight really intensively and do a Fairlight album, because it's going to take doing an album to realise the whole range of possibilities of the instrument, and it's going to be very frustrating, I know that!'