



Contact: A Journal for Contemporary Music (1971-1988)

<http://contactjournal.gold.ac.uk>

Citation

Manning, Peter. 1976. 'Electronic Music Studios in Britain - 3: University of Durham'. *Contact*, 14. pp. 27-29. ISSN 0308-5066.

Goldsmiths
UNIVERSITY OF LONDON

Electronic Music Studios in Britain - 3

University of Durham

NO FORMAL DECISION was taken to found an electronic music studio at Durham. Two coincidences — the appointment of David Lumsdaine as Lecturer in Music and the start of a postgraduate project investigating the development of electronic and computer music — inspired the purchase of a single VCS3 synthesizer and the start of a tentative venture which rapidly gained momentum. From such modest beginnings (the only other item of equipment was an old valve Revox tape recorder) the studio has grown steadily both in size and musical activity to become a major teaching, research and development project within the Faculty of Music. This has been due in no small part to the generosity of the University in sustaining a steady supply of funds for the purchase and maintenance of equipment and in establishing two permanent staff appointments exclusively for the studio, one academic, the other technical.

The studio is situated on the lower floor of the music school in a room measuring about 22 feet by 15 feet. Two much smaller rooms lead off the main studio, one providing a small stock room, the other a rather cramped workshop. The latter in turn leads to a back passage area where the main tape library is housed, along with a useful collection of literature on the medium of electronic and computer music. Two recording rooms are linked to the studio via balanced land-lines and closed circuit television, one measuring about 20 feet by 15 feet, the other 40 feet by 25 feet.

The lack of an initial block grant to equip the studio in a single operation has not in practice proved a major drawback. The constraints imposed by a limited but so far steadily increasing supply of funds have forced us to adopt a highly critical approach to the long-term objectives of the studio. In particular, the highest priority has been given to the acquisition of funds and technical skills for designing and building our own studio equipment rather than the purchase of 'off the shelf' packages from commercial firms. This has not only allowed the studio to cultivate an environment where composer and engineer may work in close co-operation, but also ensured that the money available has been spent efficiently. Most of the pioneering work in the early days was carried out by David Lumsdaine and myself with assistance from members of the Physics and Applied Physics Departments. It was the appointment of Dr. John Emmett as full-time technician in 1973, however, which provided the electronic expertise necessary for embarking on major development projects.

The heart of our system has been a studio-designed 16-in 4-out console mixer offering six channel equalisation on each channel and comprehensive stereo and quad panning facilities. This, however, has just been up-dated to a 32-in 16-out mixing system to facilitate the efficient operation of a 1" eight track and a ½" four track tape recorder. As at York, a strong emphasis has been placed on high quality recording equipment without which any electronic studio is at a serious disadvantage. The initial emphasis on sound treatment facilities is reflected in the provision of a bank of six remotely controlled, high speed Revox recorders and a four channel Teac, complemented by a set of eight Dolby 'A' noise reduction units. Two of the Revoxes have been fitted with our own variable speed control option, offering tape speeds from about 26 inches per second to dead stop.

Two VCS3s and a DK1 keyboard are the only items of commercial synthesis equipment in the studio. The other devices, apart from a pair of sine/square audio oscillators, are almost entirely home grown, including a pair of third octave filter banks, four multi-function amplitude processors (compressors) and a pair of digital delay lines. The latter marks the first important product of a long-term research project into the possibilities of digitally based studio devices.

Despite the considerable amount of time consumed by the development of the studio itself, a healthy number of compositions have been realised by undergraduates, postgraduates, members of staff and visiting composers. David Lumsdaine has realised the tapes for his Cheltenham Festival commission, *Caliban Impromptu*, his BBC commission, *Aria for Edward John Eyre*, and the ballet, *Meridian*, for the Northern Dance Theatre. Peter Wiegold has produced an electronic tape for Paul Bailey's play, *A Worthy Guest*, produced at the University Theatre, Newcastle upon Tyne, and in collaboration with myself

realised the ballet, *The Night Visitors*, commissioned by Northern Arts for the Northern Dance Theatre and given its premiere at Sadlers Wells Theatre. Elgar Howarth has paid a visit to realise *Pagliacci* for the Cardiff Festival, and Nicola LeFanu has produced the tape section for her ballet, *The Last Laugh*. A more comprehensive listing is given below.

Durham University Electronic Music Studio
 Department of Music
 Music School
 Palace Green
 Durham DH1 3RL

Current Personnel

Directors: Peter Manning
 David Lumsdaine (on leave 1976)
 Technician: Dr. John Emmet

Principal works composed in the studio

Enquiries for performances to the address above. We will then refer to the composer. Asterisked items are published by Universal Edition, the remainder by the studio.

Anna Antoszkiewicz	<i>The Phoenix</i> (1975)
Jeremy Birchall	<i>Crystallized Ginger</i> (1974)
Jeremy Birchall and Matthew Doyle	<i>Pizz</i> (1973; tape with film, mime, lighting and strings) <i>Civil's End</i> (1976)
Caroline Chamberlin	<i>Moments in Dessication</i> (1976)
Paul Crunden-White	<i>Electronic Music 1 and 2</i> (1975)
Simon Emmerson	<i>Come Up with Me</i> (1975; tape with ballet)
John Howard	<i>Close Enough for Jazz</i> (1976; tape and double bass; Northern Arts commission)
Elgar Howarth	<i>Pagliacci</i> (1971; tape and ensemble)
Diana Howell	<i>Change Rhythms</i> (1975)
Nicola LeFanu	<i>The Last Laugh</i> (1973; tape with instruments and ballet)
David Lumsdaine	<i>Looking Glass Music</i> (1970; tape with brass ensemble) * <i>Aria for Edward John Eyre</i> (1972; tape with soprano and double bass solos, and chamber ensemble) * <i>Caliban Impromptu</i> (1972; tape with piano trio) <i>Meridian</i> (1974; tape with ballet)
Peter Manning	<i>Vortices</i> (1973)
Peter Manning and Peter Wiegold	<i>The Night Visitors</i> (1975; tape with ballet)
Carolyn Martin	<i>Sweet Rose of May</i> (1976)
Benedict Mason	<i>Durham Dream with Miners' Gala</i> (1973) <i>Ertshub</i> (1974; tape and pianos)
Peter Wiegold	<i>A Worthy Guest</i> (1973; tape for play)
Helen Witherington	<i>Sea Change</i> (1975)

List of main studio equipment as at October 1976:

Studio design 32-in 16-out mixer
Two Quad stereo power amplifiers
Four Tannoy 15" monitor speakers in York enclosures
Two VCS3 synthesizers
DK1 keyboard for above
Two Tech sine/square oscillators
Studio design digital oscillator
Two studio design 28 channel third-octave filter banks
Two Barr and Stroud filters offering high-pass/low-pass/band-pass/notch options with continuously variable Q and centre frequency
Four studio design companders offering compress/expand/limit/gate/invert options with variable threshold, sidechain, attack and decay functions, separate envelope follower, voltage output and control input
Two studio design digital delay lines, with sample and hold and voltage-controllable clock options
Studio design digital pink noise generator
Studio design double pulse generator
Eight BBC pattern peak programme meters
Eight Dolby 361 noise reduction systems
58 x 74 central control matrix for the inter-connection of studio devices
Venner digital counter/timer
Advance OS 250 dual beam oscilloscope
Studio design 28 channel spectrum analyser
Thorens TD 160 record deck and Shure M75 cartridge
Six Revox stereo tape recorders (all high speed, two offering studio design variable speed option 26 i.p.s. to dead stop)
Teac A 3340 high speed four track tape recorder
Tandberg low speed stereo tape recorder
Uher 4200 portable stereo tape recorder
Uher 4000 portable mono tape recorder
One 1" eight track and one 1/2" four track tape recorder fitted with full sel-sync facilities, using Brennel deck transports, studio electronics (the 1/2" tape recorder may be extended at a later date if required)
AKG microphones, various headphones, test tapes and test equipment
CCTV (Camera plus monitor)

This is the third of a series of articles designed to acquaint composers, technicians and other studio users as well as our general readers with current activities in electronic music studios. At present the series will be confined to those in Britain. Studio directors are invited to submit *brief* articles, following the layout displayed above, for inclusion in future issues. It must be stressed that only brief articles will be considered for publication, and that, since we only have space enough for one studio per issue, a waiting list may develop. The next two studios to be featured will be those at Goldsmiths' College, University of London (*Contact 15*) and the University of East Anglia (*Contact 16*).