

## Concrete Mixers

### The story of the BBC Radiophonic Workshop by Darren Giddings revised September 2003

The potential of the new electronic technology of the 20th century was obviously not going to be lost on the world of music for long. In the 1920s and 30s musical experimenters were already trying to expand the aural repertoire of the orchestra with inventions such as the Ondes Martenot and the Theremin. Unfortunately, these instruments all too often failed to outlive their novelty value due largely to the limited nature of the sounds they were able to produce and the limited nature of where these sounds might usefully be applied.

The liberating tool for experimenters in the 1940s was the introduction of magnetic recording tape. Suddenly, sounds could be manipulated in a studio, speeded up, slowed down, played backwards and so on. These techniques were pioneered in the studios of French radio by the likes of Pierre Schaeffer, who had originally been creating sound-collages for radio live in the studio with multiple turntables, locked-groove 78 records manipulated by hand and so on and so forth (a technique John Cage had been using in the USA for compositions such as his 'Imaginary Landscapes'). With magnetic tape, these experiments could be furthered, using manipulated sounds from life, and recorded in advance for later broadcast and preservation. So was born 'Musique Concrete'. By the mid-1950s the work of Schaeffer, and such luminaries as Pierre Henry and Phillippe Arthuys was beginning to attract a great deal of interest from the musical avant-garde, eager to find new ways of expressing their radical ideas. A couple of LPs entitled 'Panorama of Musique Concrete' appeared in the UK in the late 50s, showcasing the new sounds.

Parallel to this, others were beginning to experiment with the creation of new sounds never before heard, not by using altered sounds from nature, but by creating them from electrical sources: viz., Electronic Music. Karlheinz Stockhausen created his 'Studie 1' in 1952, the first composition built from entirely electronically-generated sounds. Many other composers followed Stockhausen's work in the studio, but it is still his work, such as the epic 'Kontakte' of 1959/60, that remains among the most convincing examples of the genre. Vox Turnabout issued several LPs of Electronic Music in the 60s, including composers such as Cage, Ilhan Mimaroglu and Luciano Berio, and work by American composers such as Milton Babbitt were issued by the Columbia-Princeton Electronic Music Center (sic).

Perhaps ironically, the high avant-garde Musique Concrete and Electronic Music experiments of the 40s, 50s and 60s now sound rather dated, even

quaint. But there was at least one lasting and durable result of this exciting period of experimentation: the formation in London of the BBC Radiophonic Workshop.

Inspired by the work on French radio, in the mid-50s BBC producers began to experiment in sound - manipulation and electronics for themselves. The result was a series of high-art features for the Third Programme (the forerunner to BBC Radio 3). As a consequence of these programmes, in 1956 the BBC set up an Electrophonic Effects Committee to investigate the possibilities of the new music, and its potential for use in broadcasts. Electrophonics turned out to be a recognised medical term for something entirely unconnected with electronic music, so the description Radiophonics was devised and quickly adopted by the Committee.



Key workers in Radiophonics at the BBC at this time were the young sound engineers Desmond Briscoe and Daphne Oram. They had quickly seen the possibilities of magnetic tape for making features that were unique to radio and had worked on some of the experimental broadcasts such as a 'radiophonic poem' by Frederick Bradnurn, Giles Cooper's play 'The Disagreeable Oyster' and Samuel Beckett's 'All that Fall' in 1957-8. These experiments lead to the formation of the BBC Radiophonic Workshop in 1958. A studio was found in Maida Vale in which a close knit band of sound producers and engineers lead by Briscoe were given the somewhat enviable opportunity of experimenting with new means of sound production to feed into radio, and later television, programmes.

The results were encouraging, but from the very start there was a tendency to call on the Workshop to produce eerie and sinister music for tense psychological dramas or science fiction (such as the famous Martian noises from 'Quatermass and the Pit'). Occasionally they were called on for comedy effects - more often than not by The Goon Show, whose surreal edge encouraged bizarre noises.

From the early 60s the Workshop began to create more short jingles, signature tunes and interval signals, and to work more with schools broadcasting, where unusual effects could usefully be employed for didactic purpose. Radiophonic music was also used with the BBC tuning signal for a short time in the early 60s. Such was the change in emphasis between the experimental radio works of the late-50s, and the unusual yet cheerful jingles of the 60s, that as early as 1962 the presenter of the radio series Sound had to remind listeners that the Workshop had not been set up merely to make pop music!

Maddelena Fagandini's interval signal 'Time Beat' became the Workshop's first commercial release in 1962, being mixed with a live instrumental ensemble to produce a rather odd lop-sided Greek dance. The results were issued under the cringe-inducing nom de plume of 'Ray Cathode'. The flip-side, 'Waltz in Orbit' was even stranger, another easy listening Greek dance but embellished with a jarring Radiophonic effect that wouldn't have been out of place on a 1970s dub reggae disc.



The 1960s saw the arrival at the workshop of young and imaginative composers such as Delia Derbyshire, Brian Hodgson, John Baker and David Cain. In 1963 Derbyshire realised a musical score by composer Ron Grainer - possibly the first time a written score had been realised in this way. It was the title music to a new science fiction series for children called, of course, 'Dr Who'. For better or worse, the Workshop will always be closely associated with 'Dr Who', which may well have had the negative effect of defining in many people's eyes all that Radiophonic music is perceived to be capable of, and blinding them to the wide spectrum of other music produced in the Maida Vale studios.

The Radiophonic Workshop's output in the 60s was typified by a cut-and-paste approach. Delia Derbyshire once spoke (in a 1979 radio documentary on the Workshop) of the antiquated chaos and DIY bodge-jobs that was the Workshop's equipment base in the 1960s, and how enormously long tape

loops could frequently be seen trailing out into the corridor. A body of work from this period was available on the excellent LP 'BBC Radiophonic Music' issued by BBC records in 1968, and the 1979 release 'Radiophonic Workshop 21'.

Derbyshire and Hodgson also became involved in crossover projects with the newly emerging world of progressive rock, forming in 1969 'White Noise' with David Vorhaus. This resulted in an eccentric LP, 'An Electric Storm' which was issued by Island records.

As the 60s became the 70s, the Workshop began to take advantage of the recently developed synthesiser. Robert Moog's electronic sound synthesiser had been available from the mid-60s, and in the 70s these instruments, in particular the machines produced by the English EMS company, began to play a much larger part in their output. This had pros and cons: on the plus side it made work easier and quicker, but on the negative side, the early synths were quite limited and had a very soul-less sound that makes much of the work of the period sound disappointingly corny.

Even Delia Derbyshire expressed reservations about the flexibility and speed of synthesizer work, preferring to 'get inside somewhere and make it do a more human sound than it does'. However much of the output was friendly, lively and cheerful, and there was potential for much more profound work, as found in the output of Malcolm Clarke, a composer with a great affinity for the EMS synthesisers.

Roger Limb's work for the group, though rather brash for some tastes, brought more of an element of humour to their output, and further helped to dispel the psychological drama tag. This was the era of Limb's ever fresh 'Swirley', for many years the accompaniment to transmitter information broadcasts.

As experimenters, the Workshop has been as interested in using the traditional in an unconventional manner. Desmond Briscoe's adaptation of Ray Bradbury's 'And there will come soft rain' used only conventional instruments, with no electronic modification, and still managed to maintain the ambience of a Radiophonic work. Roger Limb's theme for 'Woman's Hour' was rejected in an electronic form, so was re-scored for a conventional ensemble and consequently enjoyed a long life.

Towards the end of the decade, the Radiophonic Workshop had become an important resource for musical composition, not merely weird sound effects, and several composers spread their wings and embarked on larger scale projects. Peter Howell of the Radiophonic Workshop recorded and released the 'lyrical adventure' 'Through a Glass Darkly', and Paddy Kingsland



created the well meaning 'rock musical', 'Rockoco'. But perhaps these were a little over-ambitious in a world where rock audiences had moved away from the progressive to the more primordial sounds of punk rock.

Several BBC LPs of Radiophonic Music by the likes of Howell, as well as Paddy Kingsland, Malcolm Clarke and Dick Mills

were released in the 70s including 'Fourth Dimension', 'The Radiophonic Workshop' and two sound effects discs. Thanks to the efforts of composer Mark Ayres, the first two Radiophonic Workshop LPs have now been sensitively re-mastered and issued on CD in 2002, and more volumes are planned. These very welcome releases open the doors of the Workshop to a new generation of enthusiasts.

The Workshop continued to use ever improving technology to make unique and special music and programmes through the eighties and nineties, providing outlets for talents like Elizabeth Parker, and diversifying into engineering roles such as the digital remastering of archive recordings for CD release (such as the 1997 BBC Radio Classics issue of Herbert Howell's 'Hymnus Paradisi').

Unfortunately the Workshop was disbanded in 1998 - the year of its 40th anniversary - as part of a Birtian restructuring exercise. It was a rather whimper some end to a valiant group of enthusiastic experimenters who have made some of the most unique bangs in broadcasting history. Their influence lives on, though, both in the worlds of electronic music and broadcasting nostalgia, and the continuing series of CD releases can only help to consolidate the legend.