

# Sunday Post: The Radiophonic Workshop

Sunday 06 March 2016, 10:00



Radiophonic Workshop composers used various instruments and objects to create sounds

**The BBC Radiophonic Workshop created music and sound effects for radio and television programmes for 40 years from 1958-98, including the iconic Doctor Who theme. Composer and Radiophonic Workshop archivist [Mark Ayres](#) tells us about its history and how it operated - and why it is still significant today.**

## ***When and why was the Radiophonic Workshop set up?***

The BBC Radiophonic Workshop was formally opened on 1st April 1958. At least, that's the legend! It grew out of a desire by the Third Programme (now Radio 3) to use the new electronic music techniques coming out of mainland Europe to enhance - in the main - its drama output. Producers Douglas Cleverdon and Donald McWhinnie were taking radio drama into more adventurous areas with works written

specifically for the medium by playwrights such as Samuel Beckett, Giles Cooper and Frederick Bradnum.

This was a different emphasis than on the continent: the French and German studios, where the likes of Pierre Henry and Karlheinz Stockhausen were building facilities to produce 'art music' exclusively. The Radiophonic Workshop specialised in what one might call 'applied sound', rather than electronic music. It's this different approach that makes the Workshop unique and so fascinating.

### ***Who were the prominent early figures?***

It was founded by two studio managers from Broadcasting House, Daphne Oram and Desmond Briscoe, who had worked on early pre-Radiophonic. Daphne was immediately frustrated, as she wanted a European-style studio, so she left the BBC soon afterwards to set up on her own in an oast house in Kent. Desmond was joined by engineers Dick Mills and Richard 'Dickie' Bird. Within a few short years the staff included a roster of legendary names such as Brian Hodgson, Delia Derbyshire, John Baker and David Cain.



RW made incidental music for many Doctor Who outings, including The Keeper of Traken

## ***What were the musical influences?***

The European Avante Garde and impressionists. In John Baker's case, the Jazz Greats. For David Cain, medieval and renaissance music. For Delia - well, she was more influenced by sound and texture. She was very young in Coventry during the early days of the war and well-remembered the sounds of German bombing runs on the city. She spent much of her life creating beautiful sounds as an antidote to the horrific ones.

## ***What sort of programmes used the Workshop? Were there advantages to an in-house service?***

In the early days, experimental drama. Then freelance composers began to realise that the Workshop offered something original that they could add to their work, so the rhythmic editing of steam train sounds provided the percussion track to Ron Grainer's theme for documentary film **Giants of Steam** (predating Doctor Who).

Later, science fiction such as **Out of the Unknown** and even thrillers like Vendetta. But their largest clients, by far, were the educational departments for both radio and television. Radiophonic abstraction was just the thing for firing children's imagination and illustrating mathematical games. Look and Read on television harnessed both Radiophonic sound design, and the composing and songwriting talents of Paddy Kingsland and Roger Limb. Certainly, producers were encouraged to use the Workshop - it was in-house and therefore, in effect free.

## ***How did things develop during the 60s with advances in technology?***

Slowly! Synthesisers didn't begin to arrive until the very end of the decade. The Workshop relied on various electronic organs, the ubiquitous test oscillators, and ingenious filters and switchers plus the ever-clever use of 'found sounds'.





Elizabeth Parker, shown in 1985, was the last remaining composer before the Workshop's demise

***Radiophonic Workshop is often associated in people's minds with Dr Who – to what extent did it dominate and even overshadow other work?***

Doctor Who was a fraction of their overall output, but their biggest single client other than (as a whole) education. There are a few hundred Doctor Who tapes in the archive including 243 reels of sound effects! It certainly overshadows their other work, but in a good way. It became their calling card. Ironically, Doctor Who started soon after Desmond Briscoe had declined to take on any more work for The Goon Show, fearing that Spike Milligan's anarchic comedic demands would take over.

***There were big changes in personnel and leadership in the early 70s – what form did they take and what was their effect?***

Brian Hodgson left, along with Delia Derbyshire, John Baker and David Cain. The old tape techniques were being superseded by the coming of the synthesiser and the department was becoming more of a music studio and less of a sound factory. More commercially-minded

composers such as Paddy Kingsland, Roger Limb and Peter Howell joined. Brian returned a few years later as Desmond took a back seat and eventually retired.

### ***How did the RW co-operate with outside composers?***

One of the earliest collaborations was with Ron Grainer on Giants of Steam and Doctor Who. Later Doctor Who composers including Dudley Simpson and Geoffrey Burgon realised that taking their recordings to the Workshop for treatment added something that could not be obtained elsewhere - and cheaply, too. Even Richard Rodney Bennett mixed his Doctor Who music (The Aztecs) at the Workshop, following a successful 1962 collaboration on radio play [The Long Distance Piano Player](#).

### ***What technological changes affected the Workshop from the 70s into the 80s?***

The coming of the synthesiser in the early 1970s - initially in the forms of EMS devices the VCS3 and the enormous Synthi 100 - killed the old techniques stone dead. Tape manipulation was no longer cost effective when there was now a machine that promised to be able to create any sound at the turn of a knob.

But the new 'voltage control' devices were inherently unstable and rather difficult to use. Digital control, which started to appear at the end of the 1970s and into the 1980s, was far more convenient and easier to use. Sounds could now be saved and accurately recalled. The new 'sampling' machines (spearheaded by the expensive Fairlight CMI) soon provided a digital way to replicate the early tape experiments far more quickly, so once again 'real' sounds started to find a home amongst the synthetic.

### ***With electronic music in the charts so much in the 80s, was there a feeling the RW was now more mainstream or was it being left behind?***

Electronic music took off massively as the synthesiser became cheaper. But the Workshop did not rest on its laurels. Brian Hodgson won considerable investment to modernise the studios in the mid-1980s with the latest equipment. It grew to become home to six full-time composers each with their own room and, according to Yamaha UK's Marketing Director at one point, was "the most up-to-date MIDI studio in the world". It was some time later that the wide availability of the technology finally contributed to the Workshop's downfall.



The Workshop shown during its formative days in 1958

### ***Who were the prominent figures in the second half of the Workshop's existence, in the 70s onwards?***

Paddy, Roger, Peter, Elizabeth Parker and Jonathan Gibbs. In the last few years, Richard Attree was the final composer to join, but Elizabeth was the last to leave, with the remains of the department being dismantled around her.

### ***How did the closure of the Workshop come about?***

John Birt introduced a scheme called Producer Choice which was supposed to make the BBC more accountable and more cost-effective. It meant that every department had to put a price on its services and, if a producer could find a service cheaper outside the BBC, they were encouraged to use it. But it was a false economy. If a producer used an in-house department, the money stayed within the BBC. If they went outside, the money did too. And the Radiophonic Workshop, having to factor in the canteen, the commissionaires and the pension schemes, could never compete on cost terms with freelance composers with similar equipment in their spare bedrooms - and that included me. Eventually, the Workshop had to close.

## ***What is the role of the RW archivist now?***

It's a hobby role. Other than a relatively small payment at the very start, I'm not paid to do it, but I've labelled all the tapes and built a database, and stood in front of the bulldozers a few times! I've released a few CDs of Radiophonic Workshop music, enabled others, and mastered many audiobooks and DVDs that have used the contents of the library for surround sound remixes and so on.

I've started a digitisation programme but it needs a lot of investment to do it properly. It's nearly 4,000 analogue tapes and they won't last for ever. The national sound archive reckon we have about 10 years to save all this material - either it will have disintegrated beyond saving, or the equipment to reliably play it will no longer exist. I have a lovely old ex-BBC Studer A80 which is built like a tank, but even that gets harder to maintain. It does worry me.

## ***How do you see the place of the Workshop in the history of music, broadcasting and as a cultural influence?***

It's enormously influential in all these respects. Certainly, people of my generation and younger grew up listening to this work in our playgrounds and classrooms. It's part of our DNA. It encouraged and inspired musicians from The Beatles and Pink Floyd through to Orbital, Aphex Twin and Labrinth. [Delia Derbyshire](#) has become a feminist icon and has given her name to a charity that encourages the involvement of young women in music. It's massively important. And there is so much more in the archive that I'd love you all to hear one day.