

music

this week's essential reading

{ 'From Rising Skirt Lengths to the Collapse of World Powers' by Michelle Baddeley, Times Higher Education

If 'mood polarity' is negative, then markets falter. Horror movies are popular, people buy drab cars and governments favour protectionist policies. That's socionomics, so-called }

Resonant frequencies

A new book details the history of the BBC Radiophonic Workshop and its boundary-breaking adventures in electronic music, writes Andy Battaglia

For all the ways they can sound strange now, it's hard to imagine how alien the earliest electronic sounds must have seemed to those who first heard them. The history of electronic noises and tones stretches surprisingly far back – even into the 19th century, depending on which definition you use. But still: imagine someone in, say, the 1950s, for whom plastic was an alchemical new substance. Consider how it must have been to hear what sounded like a throbbing, pulsing signal from outer space. Or a piercing tone high-pitched enough to suggest the possibility of other eerie frequencies at work in worlds beyond our own.

Of course, in certain respects, it's not so hard to imagine. How much do we truly understand now, when we hear electronic sounds, about their origins in electricity itself? If we can recognise what a waveform looks like on an oscilloscope, how much does that help us when it comes to explaining how that wave can be manipulated, broadcast, even played? Not much, for most of us, and it would have helped even less in 1953, when electronic sounds first worked their way into a show on the British Broadcasting Corporation radio network. The programme was a serial drama called *Journey into Space: A Tale of the Future*, and the sounds were attached first to a rocket launch and then, more mysteriously, to some kind of menacing presence that leaves a crew of spacemen confused. One of them asks the rest if they hear it, and if so what it might be. "Don't know!" comes the reply. "Gives you the creeps, don't it?"

The creeps is one of many sonically induced conditions chronicled in the new book *Special Sound: The Creation and Legacy of the BBC Radiophonic Workshop*. Here are some similar reactions, from listeners at the time, to other electronic sounds which were broadcast just a few years later: "cacophony", "loathsome", "lunatic ravings".

The broadcast in question was an experimental spoken-word show called *Private Dreams and Public Nightmares*, which enlisted electronic sound to help evoke a different kind of abstraction: the realm of the subconscious. In both programmes, it's notable that electronic sounds were used to evoke a certain kind of unknowability. And in both cases, the sounds of the era sounded – in fact, *still* sound – incredibly cool.

Both broadcasts were the result of currents within the BBC that would eventually give rise to the BBC Radiophonic Workshop, a collective that came together officially in 1958 and set about making new sounds with new machines and especially new processes. It's easy to take electronic sounds for granted in an age when they serve so many functions, besides the rich body of electronic music which they continue to generate. But ideas often lag behind the technological means that serve them, a pattern that must have been especially marked when the very idea of distinctively modern technology itself still counted as new. And it's worth remembering, as the battle recedes into history, that in the beginning electronic music was hardly considered "music" at all.

In *Special Sound*, Louis Niebur charts the context that greeted early pioneers of electronic sound around the middle of the 20th century. By that time, a handful of cities – Paris, Cologne, New York, Milan – already had established electronic-music studios, staffed mostly by eccentric men in coats and ties who would fuss with tangled tape-recorders and machines the size of rooms. Much of the early work was done in the name of research, with the advancement of music – however arcane in theory or practice – held up as the highest ideal.

What distinguished the BBC Radiophonic Workshop was its deep involvement with popular programming. Where more academi-



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cally aligned studios in the 1950s and 1960s pledged allegiance to the musical avant-garde, the Radiophonic Workshop slipped similar harbingers of progress into broadcasts intended for a wide audience. *Special Sound* revisits many of those shows in detail, from early precursors such as a 1957 radio play by Samuel Beckett and a sur-

real narrative called *The Disagreeable Oyster*, to later incursions into television such as the documentary *Giants of Steam* and, of course, *Doctor Who*. The otherworldly theme music to the latter would stand as the BBC Radiophonic Workshop's most distinctive creation after its premiere in 1963. Yet it was by no means unique among the insinuat-

ing sound effects and snippets of melody churned out by the group at the time.

Niebur's book asks a simple question: "How are we meant to understand the significance of these new sounds?" Some of their noteworthiness, to be sure, derives from the techniques and precedents that they established. Early on,

Niebur tells of so-called "grams operators", or manipulators of old gramophone record players. Certain live studio sessions at the BBC, he writes, featured "three grams operators armed with five or six turntables each, ready to insert the correct sound effect at the precise moment required". What is that if not a future vision of the modern-



Special Sound: The Creation and Legacy of the BBC Radiophonic Workshop Louis Niebur Oxford University Press USA Dh366

day DJ? From there, the process turned to technicians trimming and splicing bits of magnetic tape into loops, an anticipation of our current cut-and-paste age. And from there, electronic sounds owed much of their creation to the modular synthesizer, whose invention ran alongside many developments of early computing.

Perhaps more important, however, is the way that electronic audio experiments changed how we have come to think about sound itself. When it began, the Radiophonic Workshop went to great lengths to present its work as something other than "music". Its output was regarded as "sound effects" or "special sound," and it found more favour in the BBC's Drama Department than in the Music Department at the time. Partly that was in deference to the BBC's staff of unionised musicians, who were wary of being replaced by machines and their enigmatic operators. But it also signalled a shift in consciousness that has only become more deeply entrenched in the years that followed: a shift toward thinking about sound in music as something more than the result of some particular musical proc-

ess, whether that be a composer writing down notes or a musician playing them. Few people hear a soaring string quartet and attribute its power merely to a maestro's fleeting moods, or the wood and steel of a violin. But even fewer of us can hear a work of electronic music and even try to guess at its origins – at its real causes and effects.

This transition allows for a new idea, as Niebur writes, of sound as a representation of "unknowability". It also allowed sound to stand as "a coherent representation of a rational, logical, but unknown technology". There's room for interplay between these two aspects, even now, and it's hard to conceive how much more there would have been in the 1950s. According to one of many fascinating documents that Niebur excerpts, a committee convened by the BBC to question the effects of electronic music believed that "musicians/engineers would be able to deal with electronic sound effects only for a limited time before succumbing to mental instability". The workshop certainly attracted an eccentric cast of characters. Among them were a group of pioneering women including Delia Derbyshire, Daphne Oram, and Maddalena Fagandini, each of whom made visionary art in an era when it was rare for women to work in such high-level institutional roles, much less in such a technological realm.

That same kind of thinking – what are these weird electronic sounds and what might they do to us? – is also what makes the history of early electronic music vital today. As the age of electronic sound (indeed, of electronic technology of all kinds), advances ever further from its historical origins, the yearning for understanding only increases as the same old mysteries linger. And it's worth wondering, before the question becomes too complex to ask, just what happened to make our world sound the way it sounds now, in all its strange and alien wonder.

Andy Battaglia is a New York-based writer whose work appears in *The Wall Street Journal*, *Artforum*, *Spin* and *Pitchfork*.

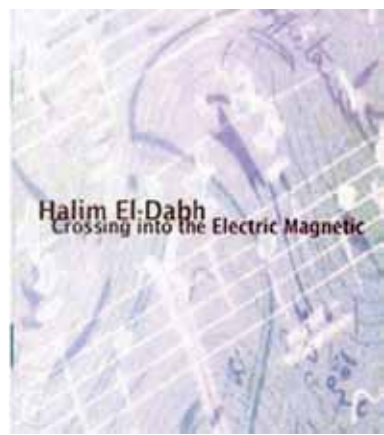
playlist

From Halim El-Dabh to the theremin – a look back into early incarnations of synthesised sound

Halim El-Dabh

Crossing into the Electric Magnetic Without Fear (2000)

The Egyptian composer's electronic experiments include recordings from the Columbia-Princeton Electronic Music Studios in the 1950s, and material made in a Cairo radio station 1944, which may be the first treated music in history. El-Dabh's curiosity has led him along many low-tech paths, too.



Various artists

Adventures in Sound EI (2009)

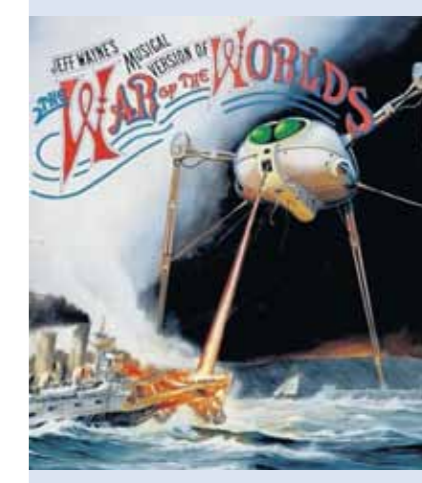
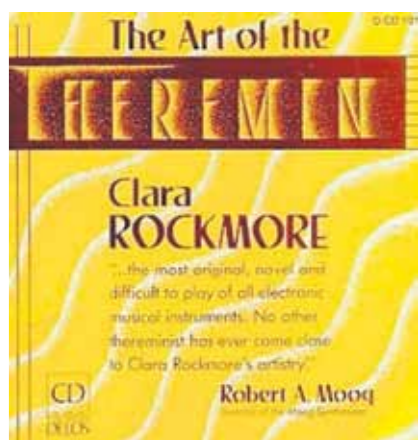
A survey of the musical academy's ventures into electronic sound in the 1940s and 1950s. The best-known item is probably Karlheinz Stockhausen's *Gesang der Jünglinge*, but there are also rare recordings of Edgar Varese, Pierre Schaeffer and Iannis Xenakis.



Clara Rockmore

The Art Of The Theremin Delos (1992)

This early electronic instrument achieved fame by being eerie on two counts. Firstly, its sound was a sort of ghostly moan. Secondly, players didn't need to touch it – they just waved their hands around. Rockmore worked with the theremin's inventor, becoming its first virtuoso.



Jeff Wayne

War of the Worlds Columbia (1978)

Though it hardly broke new ground in electronic synthesis, Jeff Wayne's 1978 take on HG Wells's novel did furnish some of the most memorable evocations of alien technology committed to disc. The Martian death ray was the most chilling/fun to imitate. All together now: "OOOOH-LAAAA!"