

# Oramics to Electronica

By Nick Street and Jen Fearnley

This is the transcript of a short documentary about the Science Museum's collaboration with electronic musicians and former employees of the BBC Radiophonic Workshop and Electronic Music Studio (EMS) to develop part of the exhibition Oramics to Electronica:

**Revealing Histories of Electronic Music.** The documentary is on display in the exhibition which will run until December 2012.

**Tim Boon, Head of Research and Public History, Science Museum:** The Oramics exhibition is the first exhibition in the Public History Project and we're planning two others. Co-curation, participation, co-creation, not having the curator saying, here is the gospel come and read it, but instead bringing in people like our visitors to work with us on the development of the Museum's cultural offer.

The discovery of the Oramics Machine has been one of those great events in a curator's working career. It's a real bit of home brew. Just by looking at it you can tell that it was always work in progress, that it was always being modified, and it's unique.

Daphne Oram is an absolute gift to an exhibition-maker. What was going on in her head was a sort of unbounded musical imagination, where she was thinking in terms of pure sound.

Twelve electronic musicians were invited to collaborate on the Oramics to Electronica exhibition. Combining their individual musical knowledge and expertise they were tasked with curating part of the exhibition.

**[scenes of the participants visiting the museum stores and conservation lab]**

**Dave Robinson, project participant:** Being involved in something that told one of the stories of electronic music, was just something I felt I had to be involved in. I'm very pleased that there's a real diversity: everybody from a drum-and-bass DJ to academic students, to a guy who runs a label. I'm a journalist and a writer as well, so to actually be involved in something creative like this was just a golden opportunity.

**[scenes of some of the workshop sessions]**

**Tim (to the participants):** An exhibition is a work of art every bit as much as a song is a work of art, so you're making creative decisions about how you're going to define it, what's out and therefore what's in.

**Martin Swan, project participant (to the other participants):** The movement from the laboratory to the bedroom is kind of 'mainstreamenising'. And it's kind of like moving things from the scientists and the obscure into the mainstream and into the public consciousness, and you know, all of these people were part of that process. Laurie Waller, project participant (to the other participants): You can tell a story with genre, one which is I think largely of subversive, quite radical people who are quite often outside of the mainstream.

**Tim (to the participants):** Could you do an exhibition on electronic music without the Oramics Machine? Of course you could. How important is Oramics and how important is Daphne in the story that you want to tell?

**Jobina Tinnemans, project participant (to the other participants):** She is trying the edge of how to create sound. So this is the story of how it came about, but where is the edge? 'Cause this is all chronological, we all tend to work chronologically. So, is that what we want?

### **[scenes of the participants visiting the museum stores]**

**Tim:** You might want to show 100 synths in an exhibition on this topic if you're an enthusiast, but we'll be lucky if we can show ten in the space that we have.

Pioneering members of the BBC Radiophonic Workshop and EMS were invited to contribute to the exhibition.

### **[scenes of the participants visiting the exhibition space as decoration works are being carried out]**

The Public History Project is founded on the principle that different people tell different sorts of stories. And what interested me about people who were involved in electronic music in the 1960s and 1970s was that I would get an autobiographical account of what happened in electronic music.

### **[scenes of the workshop in which the participants met the former employees of the BBC Radiophonic Workshop and Electronic Music Studio (EMS)]**

**Dick Mills, former employee Radiophonic Workshop (to the participants):** Sounds that people didn't like for programmes they couldn't

understand. That was our claim to fame and it's altered people's listening and appreciation of a new dimension in music and art. And that's what we're guilty and proud of.

**Brian Hodgson, former employee Radiophonic Workshop (to the participants):** There was a great sort of tactile quality about all of the early work. Basically, when you were making music you were making it with your hands.

**Steve Marshall, former employee Radiophonic Workshop (to the participants):** So for instance in the workshop they had a piano, an acoustic piano that had been taken to pieces so that all that was left was the strings, like a harp. And that's what Brian did the Tardis noise on, which was scraping his mum's door key down one of the strings. Brian (to the participants): So we had all sorts of strange devices, because these were not specially made for us, these were just bits the BBC had used. The workshop was given the key to redundant stores, and a clever engineer to get things working again.

**Jobina (to the former employees of the Radiophonic Workshop and EMS):** This creativity was really a mood that we wanted to capture.

**Martin (to the former employees of the Radiophonic Workshop and EMS):** The make-do-and-mend idea is something that was inherent in the technology in the 50s and the 60s. And actually although the technology has changed the kind of spirit of doing something you weren't supposed to do with a thing, is kind of a really really important part of the exhibition as well.

**Peter Zinovieff, founder of EMS, (to the participants):** At EMS there were lots of tactile experiments, so I think that that's an area which would be interesting to delve into, because I haven't thought about it for 20 years, 40 years. The main studio went on developing and really its end point is now in a computer.

**Martin (to Peter Zinovieff):** It's digits to digital in a way. You know, it's come from something that was physical and big that you had to kind of walk around to do stuff, to something you can hold in your hand.

**[scenes of the participants looking at the exhibition space while the display case for the Oramics Machine is being built.]**

**Tim:** So what you can see, that is the first phase of the exhibition. And then beyond you can see we've got, there are probably 5 I think, of the display cases, which are what we're projecting your exhibition into.

**Merel van der Vaart, Associate Curator Public History, Science Museum (to all):** This is looking at it from above. We have the Oramics Machine in the big case, an information point with more in depth information that people can kind of leaf through, and then we have this space, which is the other half, which is kind of the blank canvas.

**[scenes of the participants and former employees of the Radiophonic Workshop and EMS visiting the Oramics Machine in the museum's stores]**

**Mick Grierson, Director of the Daphne Oram Collection (to all, standing next to the Oramics Machine's oscillator cabinet):** I've just got to say how much I love this, just because I love the design. I think that all oscillator cabinets, generator cabinets should be designed like this. So this is kind of the business end really, this is what produces the sound. I don't know if you can see, but here and here there are these areas where you can put in a glass slide and on the glass slide, that's where the waveforms are painted. And then the sound is generated by the oscilloscope so it's forced to trace the line of the waveform.

**Dick:** I only joined the workshop at the same time that Daphne resigned, so I look upon Daphne Oram as my radiophonic godmother. We went down to her house in Kent and saw the Oramics Machine in all its glory, and it was working. Brian (to participants): I seem to remember either Delia or I tried drawing some waveforms, and it's odd 'cause you don't get what you really expect to get out at the other end.

**[scenes of the Oramics Machine being moved from the museum's stores to the exhibition and being installed in the display case.]**

**Dennis Kelles-Krause, Conservator, Science Museum:** I was absolutely fascinated that this woman working in the 1960s had such a vision. A lot of people will look at the object and they'll laugh at it because of the way it's constructed, but I really admire her for being able to do what she did, because to me it's pure creativity.

**[scenes of the former employees of the Radiophonic Workshop looking at the first phase of the exhibition, featuring the Oramics Machine]**

**Tim:** The musicians came up with a three-part structure for the exhibition which I would never have thought of. So you have the idea that you make do with what you can get your hands on to make music.

**Andy Wheddon, Project Participant (to the other participants):** I think the make-do- and-mend ethos is something that runs throughout all of what we've been doing.

**Tim:** You have the flip side of that, which is that actually it's become a commercial market and it's become cheaper and cheaper and easier and easier to make electronic music.

**Dave (to the other participants):** As an example I would suggest that the Fairlight being a sampler, but it cost £30,000, we don't see that as the democratisation of sampling. But we see something like the Akai S900 as something that took sampling to the masses.

**Tim:** And then you have this thing which is very characteristic of electronic music, which is the constant searching after new sonic effects and new musical forms.

**Jobina:** I hope what the public gets out of it is that a lot of effort, thoughts and vision has been put to make these machines to work, and things we take for granted nowadays once were really really exciting new developments.

**Dave:** I'm hoping that it will be interesting to a large swathe of the public. To sit in a room on a Tuesday afternoon with a load of people just talking about electronics and synthesisers and bits of music that we respect and have grown up with has been exhilarating, it really has.

**Tim:** Most of the electronic music we hear is pre-packaged. If you think instead, Well this has been going on for 60 years. There are things that people do to make this music. You might be inspired yourself to try a little bit of electronic music, having seen this show.

In order of appearance the following people feature in this film:

Tim Boon, Head of Research and Public History

Dave Robinson, Project Participant

Martin Swan, Project Participant

Laurie Waller, Project Participant

Jobina Tinnemans, Project Participant

Dick Mills, former employee Radiophonic Workshop

Brian Hodgson, former employee Radiophonic Workshop

Steve Marshall, former employee Radiophonic Workshop

Peter Zinovieff, founder of EMS, Electronic Music Studio

Merel van der Vaart, Associate Curator Public History

Mick Grierson, Director of the Daphne Oram Collection

Dennis Kelles-Krause, Conservator, Organics & Inorganics

Andy Wheddon, Project Participant