

Electronic creations

Synthesize Me! celebrates the work of electronic music pioneers Daphne Oram and Delia Derbyshire. **Sam Dook** describes how Carousel House Band drew on this to devise original music

The Carousel House Band is an integrated band of learning disabled musicians and music facilitators. The Synthesize Me! project has seen them create music using digital technology using a range of software.

They have recorded new music, performed live and delivered two workshops in a local school for people with special educational needs.

Band members are myself (guitar), Oliver Tatum (drums), Elliott Duffield (saxophone), Laura McGowan (keyboards), Bethan Ap-Evans (keyboards) and Claire Matthews (saxophone).

The project focused on two female pioneers in electronic music. Delia Derbyshire (1937-2001) was a musician and composer who was born in Coventry. She worked in the BBC Radiophonic Workshop in London and is best known for her early electronic recording of the Doctor Who theme tune in 1963. Daphne Oram (1925-2003) was one of the first British composers to produce electronic



sound. As a co-founder of the BBC Radiophonic Workshop, she was a central figure in the evolution of electronic music. Besides being a musical innovator, Oram was the first woman to set up and direct an electronic music studio and the first woman to design and construct an electronic musical instrument.

The inspiration for the project title comes from another exceptional electronic musician, The Space Lady, aka Susan Dietrich Schneider, who wrote a classic song called *Synthesize Me*.

The starting point for the project was a discussion about how technology has advanced since Oram and Derbyshire's day. This involved looking at one of Derbyshire's key techniques – creating sound samples from objects using a reel-to-reel tape machine and microphone, which she would then manipulate by speeding up or slowing down the tape playback speed.

We used Ableton software, which can simulate these effects, and I devised a game to get us started. Each band member worked with a sheet of A4 paper to explore its sound possibilities – scrunching,

ripping, shaking etc. It was amazing to see how many sounds we could create. The sounds were recorded into the software and I was able to quickly demonstrate sound manipulations such as pitch shifting.

We also experimented using a cooking pot lid, bottles and other household objects, which made interesting sounds. In other sessions, we made “field recordings” of found sounds on trips around Brighton.

Using Ableton software and a variety of tools to trigger our home-made sounds meant band members were effectively playing self-designed instruments.

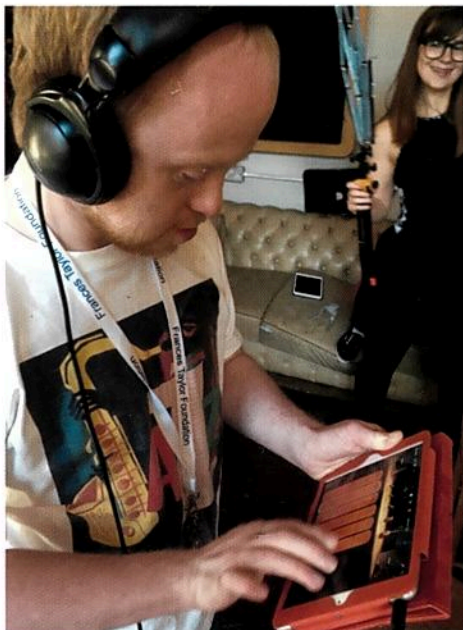
Drummer Oliver Tatum has been creating original sounding rhythms by playing an electronic drum kit that triggers sounds created from household items and field recordings.

We have also made good use of an Alesis SamplePad, which can achieve similar results to Ableton software but is portable.

The beauty of the more modern midi instruments like the SamplePad is that they often have dynamic capabilities so the harder you play them, the louder the sound clip that is triggered becomes. This makes for a genuinely tactile experience for the musician and means sounds created have depth like those made using a traditional instrument such as a guitar or drum kit.

Using apps

Music apps have been around for a while; they transform a tablet or even a mobile phone into a musical instrument. Touch screen technology means a tablet can be turned into a digital instrument that is accessible for people with limited motor skills. Some apps make use of the tablet's camera so the instrument can be controlled by gestures in the air.



Top: Laura McGowan performs at the Green Door Store; left: Elliott Duffield exploring music apps; below: recording in the field



One of Oram's great achievements was her exploration of the relationship between mark making and sound. Oramics was a drawn sound technique she invented in the 1950s. Many modern apps combine drawing marks on an iPad to generate or complement sound creation, but not all are user friendly for people with learning disabilities.

We have been using music apps and our learning disabled artists have been reviewing them. You can read about apps in our comprehensive teacher's guide on the Resources page of the Carousel website.

Feedback from students who have been introduced to apps through the Synthesize Me! project has been very positive. One said about the Musyc app: "I think its great fun to use, so many sounds that you can hear and so many different shapes as well you can use." Others have said of the Bloom app: "It's a good app to use. I like to look at the colours. It makes me feel happy", "The mood of this app is kind of dreamy. When you press it, little circles with colours come out and it makes different rhythms, so it's really nice" and "It sounds like a rainbow!"

We also had fun with the Stylophone, a miniature keyboard first produced by Dubreq in the 1960s. The original Stylophone was famously used by David Bowie on the recording of classic song Space Oddity. It is a compact instrument operated by touching a metal-tipped stylus on a keyboard metal strip. It is very intuitive and makes a small but satisfyingly unique range of sounds. We used three varieties of Stylophone and band members found them very easy to play. Gliding the stylus sideways to make a glissando effect was particularly popular.

A professional view

Lara Rix-Martin, musician and owner of Brighton record label Objects Limited, came to several sessions to offer a critical eye.

Rix-Martin started her label as a



Bethan Ap-Evans improvises a bottle horn while Oliver Tatum rustles up some paper percussion

platform for women and non-binary artists working in electronic music, who are under-represented in the industry.

She gave this feedback: "The sessions with the house band allow each of the artists to show their flair and tastes in learning and music making. The apps allow the artists to independently explore the themes of the session.

"As part of an eclectic group, each artist adds something interesting to the music project. I believe the way the sessions are built shows clear progress and learning for all the artists. The sessions are set up for success, for whatever level of involvement each artist is ready to participate in."

Inventing music in colour

Software programmer Sam Halligan has created a sound patch that enables people to use Figurenotes, an accessible colour notation system.

Using a sequence of colours and shapes, Figurenotes demystifies musical notation and is particularly useful when working with musicians of mixed abilities.

It is exciting to be road testing these software patches at a developmental stage. It makes for a very fun and accessible musical activity, leading to rapid development of composition ideas. The colour coding went down really well with our musicians.

On show

The Carousel House Band performed to an enthusiastic audience at The Rock House hosted by the Green Door Store in Brighton. Using their newly honed skills operating a variety of digital musical instruments, they performed the Dr Who theme tune and an original composition devised as part of the Synthesize Me! project.

The Rock House is a monthly music gig for learning disabled musicians and is always a very lively night. You can find out more on the Carousel website.

We also ran two workshops at St John's School and College for children and young people with learning disabilities. Our keyboard player Bethan Ap-Evans said: "I'm excited – I can show the students how to play the instruments well."

The students created their own samples from unlikely sound sources such as household items. These were manipulated and used to create original music through a mix of technologies, including a theremin, an electronic instrument that can be controlled without physical contact from the performer.

The head of music at St John's said: "The level of engagement and feedback from learners was excellent and the end result was of a very high quality. In addition to the workshops, we were given a thorough guide to all apps used and some guidance on how to use them best. The whole experience was inspiring not just to our learners but also to myself as a teacher and we are left with some exciting ideas of how to use music technology in our college."

- To find out more about this project or other work by Carousel, visit www.carousel.org.uk, email enquiries@carousel.org.uk or call 01273 234 734
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Sam Dook is producer and guitarist for the Carousel House Band and a member of The Go! Team band

All together now (l-r): Sam Dook, Oliver Tatum, Elliott Duffield, Laura McGowan, Bethan Ap-Evans, Claire Matthews

