

## Contemporary Music Meets Cutting-Edge Science

Posted on Tuesday 13th November 2007

University of Birmingham scientists are working with Birmingham Contemporary Music Group, composers and young people to create a series of string quartets by leading composers, all inspired by the science of spectroscopy.

Professor Michael Overduin, from the Henry Wellcome Building for Biomolecular NMR Spectroscopy at the University of Birmingham, has a personal mission to demystify the science behind NMR Spectroscopy – and a strong personal interest in music.

The outcome of the innovative project Resonance– which has involved more than a year of intense discussions, workshops and rehearsals - is a series of string quartets for young players by leading contemporary composers – Tansy Davies, Philip Cashian and David Horne. The quartets are all inspired by the ideas and imagery of biomolecular science and are intended for players of an intermediate and advanced level. Scores will be available at the end of November, following their World Premiere performances in Birmingham on Sunday, November 25 by players from BCMG and young players from Birmingham Music Service, who have been involved in the project throughout.

Professor Overduin uses the language of music to explain his work, describing the powerful magnets used in NMR Spectroscopy, which allow scientists to 'hear' the individual 'voice' of each atom. He says: "We can separate these signals and see proteins as a symphony of frequencies."

Discussion forums between participating scientists and composers involved in Resonance made it clear that the traffic wasn't all one way. Composer Tansy Davies often looks to science and nature for inspiration: "There are so many patterns and systems to be found that can be transformed into music. Using found patterns in this way helps to inform atonal music with a logic which can underpin everything from harmony and rhythm to large scale structure."

The project has won major funding from The Wellcome Trust, the largest charity in the UK. It funds innovative biomedical research, in the UK and internationally, spending around £500 million each year to support the brightest scientists with the best ideas. The Wellcome Trust supports public debate about biomedical research and its impact on health and wellbeing.

Mike Loftus of Locate in Birmingham, who are also supporting the scheme, said: "The continuing economic success of the City depends more than anything else on our ability to attract retain and nurture the talent that is at the core of the knowledge economy. Creativity whether it manifests itself in science or in the arts is our most vital resource. What is more building links between these different varieties of creativity is further compelling evidence of our diversity as a city and as communities.

"For all of these reasons we have been delighted to be associated with this innovative initiative."

ENDS

Resonance Events in Birmingham

Insight Evening: Tuesday, November 25 at 6.15pm

Resonance Quartets Concert: Sunday, November 25 at 7.30pm

Resonance culminates in two free evening events in Birmingham. In the first – an Insight Evening at Birmingham University's Henry Wellcome Building for Biomolecular NMR Spectroscopy on Tuesday, November 13, scientists and composers share some of the processes and discussions that took place during the project, and young musicians from String Quartets from Scratch play their own science-inspired Resonance Suite.

Sunday, November 25 sees the World Premiere of the three 'Resonance' Quartets in a multi-media performance at Birmingham's CBSO Centre which also includes films and images relating to the science. The three quartets - Philip Cashian's Spinlock, David Horne's Magnetic Moments and Tansy Davies' Angular Momentum - will be performed by young musicians from Birmingham Music Service, supported by players from Birmingham Contemporary Music Group. The concert also includes a repeat performance of Resonance Suite by SQFS.

Admission for both events is free. Either telephone 0121 616 2616 or email [info@bcmg.org.uk](mailto:info@bcmg.org.uk) - or simply turn up on the night.

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How to obtain the Resonance String Quartets

Scores for the 'Resonance' String Quartets will be available on the night and after November 25, 2007, priced £10 each from:

BCMG, CBSO Centre, Berkley Street, Birmingham B1 2LF Tel: 0121 616 2616

Philip Cashian Spinlock advanced

David Horne Magnetic Moments intermediate

Tansy Davies Angular Momentum intermediate/advanced

Further information about Resonance: [www.bcmg.org.uk](http://www.bcmg.org.uk)

Information/Biographies

Henry Wellcome Building for Biomolecular NMR Spectroscopy/ Professor Michael Overduin

<http://www.nmr.bham.ac.uk>

<http://www.biotech.bham.ac.uk/BTNews49/profile49.htm>

Tansy Davies

Philip Cashian

[http://www.bmic.co.uk/composers/cv\\_details.asp?ComposerID=383](http://www.bmic.co.uk/composers/cv_details.asp?ComposerID=383)

David Horne

[http://www.boosey.com/pages/cr/composer/composer\\_main.asp?composerid=2832&t>](http://www.boosey.com/pages/cr/composer/composer_main.asp?composerid=2832&t>)

About BCMG

BCMG was formed in 1987 by players from the CBSO and Simon Rattle, the Group's Founding Patron. Based at the CBSO Centre in Birmingham, BCMG is established as one of Europe's leading ensembles, and tours in the UK and abroad. The core of BCMG's work is the performance of new music, and the Group has premiered over 100 new works by leading UK and overseas composers. Most have been commissioned with the help of a large number of individuals through BCMG's ground-breaking Sound Investment scheme. BCMG has won many awards for its work in attracting new audiences for contemporary music, and has an extensive learning programme, engaging a wide range of people with the composition and performance of new music. BCMG has strong relationships with its two Artists-in-Association Oliver Knussen and John Woolrich, and also with Thomas Adès who conducts the Group during 2007-08 in Birmingham, and with whom BCMG is invited to Carnegie Hall, New York in 2008.

#### BCMG LEARNING

BCMG is passionate about involving and supporting people of all ages, abilities and backgrounds in the creation and performance of new music. BCMG does this through a variety of innovative projects evolved from collaborations between BCMG players, composers, teachers, education organisations, young people and the wider community. The programme reflects BCMG's artistic identity, responds to local needs and utilises the excellent resources of the Group – the expert performance skills of the players, the ensembles links with leading composers in this country and abroad and our acclaimed commissioning programme.

The 2007-08 season sees successful ongoing programmes such as Music Maze and Feel the Buzz sitting alongside exciting new developments such as the new Zigzag Ensemble, Family and Schools Concerts and the Resonance string quartets project. Each project aims to create opportunities for young people of all ages as performers, composers and active listeners.

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