

The Mighty Sky ...mightier yet

■ Nick Swift

In a March week with an equinox, super moon and partial eclipse, the biggest astronomical event by far was a supernova in Huddersfield Town Hall. As you can see from the front cover of this issue of EiS, it was quite an event. A thousand parents and children, 200 primary pupils in the choir and the brilliant Kirklees Youth Symphony Orchestra under Thom Meredith produced a spectacular night of music, dance, poetry, lasers and laughter, all on the theme of astronomy. Each performance was introduced by astronomer Professor Paul Roche and poet and broadcaster Ian McMillan. Orchestral pieces were accompanied by an amazing synchronised laser display that even created an indoor sky.

Beth Nielsen Chapman rocked the Town Hall with seven of her Mighty Sky songs – you can hear the *Rockin' Little Neutron Star* finale from the show at: <https://www.youtube.com/watch?v=4SkeJcFeNR0&feature=youtu.be>

In November 2014 I wrote in *EiS* (see www.ase.org.uk/journals/education-in-science/) about *The Mighty Sky* astronomy and music project in Daventry. This was the first event in a project funded by a Science and Technology Facilities Council (STFC) award. Using what we learned in Daventry, we moved on to a second, bigger event in Huddersfield Town Hall. In both venues we showed that, when it comes to inspiring children, science does not have to be ring-fenced. Weeks

of rehearsing and performing Beth's songs about the Moon, neutron stars, the big bang, electromagnetic radiation and the ecliptic seemed perfectly natural to the young musicians. After the concert, Thom Meredith, the principal of Kirklees Music School, said: *'We have had tremendous feedback from schools who have said that their young people have been truly inspired by the concert and from parents of the youth orchestra who were just so grateful that their children were part of the experience.'*

Professor Rachel Cowgill, Head of Music and Drama at the University of Huddersfield added: *'It was great to see children from all over the area working together, exploring science through music and having such a brilliant time.'*

Dr Fiona Woodhouse, PGCE Tutor, School of Education and Professional Development at the University of Huddersfield, summed it up: *'It was a truly inspiring evening musically. When you listened to Paul Roche explain these astronomical bodies, you were left with the realisation that "The Mighty Sky" really is mighty and all this on the eve of the eclipse. Amazing.'*

Perhaps a surprising high point of the show was the wide-eyed audience appreciation for Andrew Wright, Managing Director of Reliance Precision Ltd., a local engineering company. He appeared on stage carrying an intricately machined gear wheel and explained that it was 'just a spare', the original being on the Rosetta spacecraft half a billion kilometres away, having travelled 7 billion km since it was launched and played the crucial role of opening the solar panels (see http://sci.esa.int/where_is_rosetta/). Ian McMillan remarked that it was *'a long way to go to pick up a spare'*. Andrew spoke about space and people; space engineering was what they did and apprenticeships for local students offered a career in the industry. Adults and children were surprised that a small company, tucked into a green hillside,



Andrew Wright from Reliance Precision Ltd holding a spare gear from the Rosetta spacecraft.

was making such important technical products for space and wanting local apprentices to consider them as a career option. This was an important message: *Space science is real and we do it in Huddersfield.*

In a sense, it does not matter whether the event was about astronomy or chemistry. The end result is inspiring children and raising awareness among educators that science is fascinating, however it is presented. Astronomy was our subject because Beth Nielsen Chapman and Rocky Alvey wanted to share *The Mighty Sky* with schools in the UK. Beth is a renowned Nashville talent with plenty of hit singles and albums to her name. She is also passionate about education. From our first meeting in a café in Primrose Hill in 2013, to the Huddersfield concert two years later,



Paul Roche and Ian McMillan – the Morecambe and Wise of astronomy.

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Beth Nielsen Chapman in rehearsals with Kirklees Youth Symphony Orchestra.

Beth has displayed an unstoppable energy, matched only by the equally unstoppable Trudie Myerscough-Harris from the Whispering Bob Broadcasting Company. Bob Harris is something of a legend in Nashville and his wife Trudie brought Beth over from the city of rock

and country music to the land of brass bands and choral societies.

The Mighty Sky is built on the Grammy-nominated album by Beth Nielsen Chapman, Annie Roboff and Rocky Alvey, director of the Vanderbilt Dyer Observatory in Nashville (<http://news.vanderbilt.edu/2012/05/rocky-alvey-whats-your-story/>).

The Mighty Sky UK project was a pilot, creating the musical arrangements and trying out the performance concept. We now hope to expand it around the country, making it accessible to music groups anywhere. It is a wonderful way of introducing children to the ideas and vocabulary of astronomy, by tapping into the music education hubs around the country that have the talent and structure to make these events work. It has been an incredible success for ASE, bringing parents and children together in the enjoyment of learning. You can find out more about the songs at <http://themightysky.com/>.

All photographs courtesy of Karen Gavin.

Nick Swift is the Project Manager for *The Mighty Sky* project.

Excerpt from Rockin' Little Neutron Star

Her career was finished and her bright days were done
She'd been up on the stage, she'd outshined the Sun
All the other stars said it's time to move over
But man they got an eyeful when she went supernova

She's a neutron star, and she spins like a top
She's a little pulsar, man she knows how to rock
If she'd been a little bigger would have been a black hole
We can hear her rhythm on the ra...a...dio...oh...oh...oh

She's been a heavyweight since the moment of birth
A spoonful weighs as much as a mountain on earth
A thousand years ago man she lit up the skies
She's gonna be around till the universe dies