

The science of perfect sound

Catterick, 15th September 2012

A one-day vocal workshop delivered by Professor David Howard, one of the country's leading vocal experts, covering all the technical aspects of singing from breathing to vocal health. This workshop will improve your basic technique, give you the tools to protect your voice and find out the reasons why your choir goes out of tune and how to solve the problem.

10.00am – Welcome and introduction from Miles Dunn, Chairman of the host choir, the [St Paulinus Singers](#)

10.05am - The vocal instrument

the power source – Breathing: Posture and breathing are basic to achieving a healthy vocal output and the three ways of breathing will be described and worked on.

the sound source – When we sing we engage the vocal folds in the larynx. Its function will be described with reference to models and sounds.

the sound modifiers – To set up different sounds when we sing or speak we change the shape of our mouths and throat and may make use of the nose also. Together these are known as the vocal tract and the acoustic changes that are brought about will be explored with reference to models.

11.00am - Refreshment break

11.20am

Acoustics of the singing voice

The acoustic output from the voice will be shown using real-time displays that enable the main elements of sound that are used in hearing to be demonstrated and tracked in practice during singing.

Key elements of choral singing

Breathing and long lines

Vowels

Consonants

12.30pm – Lunch - including an opportunity to see if you have what it takes to become an opera singer by taking the tests you saw on Channel 4's "[Hidden talents](#)" programme

2.00pm - Key elements of choral singing

Practical exercises for each will be worked through, always with reference to the vocal instrument itself.

Pitch, tuning and intonation

Performance matters

Ensemble singing

4.00pm Finish

Venue: Wavell Junior School, Wavell Road, Catterick Garrison, North Yorkshire, DL9 3BJ

Cost: £15 per person, payable on the day + an item to share for the lunchtime picnic.

How to register: To register your place at this event, please email Sam Gardner on samgardnermd@gmail.com. It would be helpful if you could provide a very short overview of your current singing activities, including which part you currently sing, so we can pitch (pun intended) the workshop at an appropriate level for the delegates.

Biography – Professor David Howard

David is currently the Head of the Department of Electronics at the University of York. His research focuses on the analysis and synthesis of singing, music and speech, tuning and pitch drift in unaccompanied (a capella) singing; the effect of singing training particularly on boy and girl choristers, the acoustics of singing in different styles and 'ring' and 'tingle' in the singing voice.

David engages frequently with the media and was made an EPSRC Senior Media Fellow specifically tasked with engaging the public with science, engineering and technology. You may have seen him on programmes such as BBC4's Castrato, Voice and Channel 4's Hidden Talent Show.

David has published a number of books and book chapters relating to his teaching and research. He writes Apps. for the iPhone, iPad and iPod Touch mainly in the area of sound and music and he conducts a local choir, Vale of York Voices, which sings Evensong approximately monthly in York Minster.