WHAT IS MUSIC?

Solving a Scientific Mystery

The science of music started more than 2000 years ago, when Pythagoras made his observations about consonant intervals and ratios of string lengths.

But despite all the advances made in acoustics, psychology, neuroscience and evolutionary biology, scientists still have no idea *what music is*.

The theory in this book is the result of more than 20 years of research by the author. It explains in detail many of the familiar features of music: notes, scales, melody, harmony, chords, home chords, bass, rhythm and repetition.

It also explains the symmetries of music. These symmetries include invariances under pitch translation, octave translation, time translation, time scaling, amplitude scaling and pitch reflection.

Most importantly, the theory explains the emotional effects of music, and this explanation sits firmly within the framework of modern evolutionary theory. For the benefit of those not fully familiar with the concepts of theoretical biology, what this means is that the theory explains how our ability to respond to music helps us *have more grandchildren*.

Published by Philip Dorrell, 2005.

Revision Date: 22 March 2005

ISBN 1-4116-2117-4

The official website for this book is **http://whatismusic.info/**.
The author's personal website is **http://www.1729.com/**, and current contact details may be found at **http://www.1729.com/email.html**.

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Dedicated to
Amanda and Natalie.

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Acknowledgements

I would like to thank my wife Marcelina and my children Amanda and Natalie, for putting up with my efforts to write this book.

Thanks to my sister Jean who edited the book, and then, after I had done a substantial rewrite, edited the book a second time.

Also thanks to my Mum who read the book and made some useful suggestions, to Sean Broadley who made a remark about the musical quality of purely rhythmical music, and to Vasil Dimitrievski who told me about Macedonian dance music.

Any errors of style, grammar or content remain my own responsibility.