

The Music Of Pythagoras How An Ancient Brotherhood Cracked Code Universe And Lit Path From Antiquity To Outer Space Kitty Ferguson

In Western Civilization Mathematics and Music have a long and interesting history in common, with several interactions, traditionally associated with the name of Pythagoras but also with a significant number of other mathematicians, like Leibniz, for instance. Mathematical models can be found for almost all levels of musical activities from composition to sound production by traditional instruments or by digital means. Modern music theory has been incorporating more and more mathematical content during the last decades. This book offers a journey into recent work relating music and mathematics. It contains a large variety of articles, covering the historical aspects, the influence of logic and mathematical thought in composition, perception and understanding of music and the computational aspects of musical sound processing. The authors illustrate the rich and deep interactions that exist between Mathematics and Music.

"(James) relishes the sheer quirkiness of intellectual history, rescuing some of the battier beliefs of scientists and composers from the revisionism of textbook biographies and producing a graceful and entertaining account of matters seldom presented to the general reader."-THE NEW YORKER "A provocative, engaging reassessment of the Western musical tradition and its relation to science." -PUBLISHERS WEEKLY

J. B. Kennedy argues that Plato's dialogues have an unsuspected musical structure and use symbols to encode Pythagorean doctrines. The followers of Pythagoras famously thought that the cosmos had a hidden musical structure and that wise philosophers would be able to hear this harmony of the spheres. Kennedy shows that Plato gave his dialogues a similar, hidden musical structure. He divided each dialogue into twelve parts and inserted symbols at each twelfth to mark a musical note. These passages are relatively harmonious or dissonant, and so traverse the ups and downs of a known musical scale. Many of Plato's ancient followers insisted that Plato used symbols to conceal his own views within the dialogues, but modern scholars have denied this. Kennedy, an expert in Pythagorean mathematics and music theory, now shows that Plato's dialogues do contain a system of symbols. Scholars in the humanities, without knowledge of obsolete Greek mathematics, would not have been able to detect these musical patterns. This book begins with a concise and accessible introduction to Plato's symbolic schemes and the role of allegory in ancient times. The following chapters then annotate the musical symbols in two of Plato's most popular dialogues, the Symposium and Euthyphro, and show that Plato used the musical scale as an outline for structuring his narratives.

A spirited look at the relationship between physics and religion--and the implications for both sexes.

Acousmatic Sound in Theory and Practice

The Occult Arts of Music

A Brief History

From Pythagoras to Fractals

The Secret History of Pythagoras

The Harmony of the Spheres

Prelude to the Song Itself

The subject of this book, as per the title, is music (from the Greek μουσική τέχνη - musiké téchne, i.e. "the art of the muses") in the works of Pythagoras, the first intellectual in the history of Philosophy to make that art the center of their worldview, even including it in the so called "Exact Sciences". In order to have more comprehension and clarity with regards to the intellectual production of Pythagoras, whose written works survived to the 21st century in a very fragmented form and in much smaller number, it is necessary to research the historical sources contemporary to the philosopher, as well as those which succeeded him.

The celebrated mathematician and philosopher Pythagoras left no writings. But what if he had and the manuscript had never been found? Where would it be located? Two mathematicians, one American, one British, set out, unbeknownst to each other, to find the missing manuscript.

What we think music is shapes how we hear it. This book traces the history of the idea of pure - 'absolute' - music from Pythagoras to the present, with special emphasis on efforts to reconcile the irreducible essence of the art with its profound effects on the human spirit. The core of this study focuses on the period 1850-1935, beginning with the collision between Richard Wagner and the Viennese critic Eduard Hanslick.

Although we all remember the Pythagorean Theorem from our school days, not until you read this book will you find out about the marvelous treasures this most famous mathematical concept holds. In an easily understood manner, the author entertains us with the wonders surrounding this theorem. This is the sort of treatment that will help popularize mathematics!-Charlotte K. Frank, PhD, SVP, research and development, McGraw-Hill Education, The McGraw-Hill CompaniesUsing the familiar Pythagorean theorem as the main theme the authors show the power and beauty of mathematics as we would have perhaps wished to have seen it when we were first introduced to this ubiquitous theorem in our school days. This book is a must read for anyone with even a small interest in mathematics.-Daniel Jaye, principal, Bergen County Academies, Hackensack, NJThe first time I have enjoyed anything about mathematics.-Bob Simon, 60 Minutes CorrespondentNot only is this book a very valuable resource for mathematics teachers, but it is also a book that can convince the general public that there is genuine beauty in mathematics.

Perhaps this book will help bring 'converts' to mathematics!-Dr. Anton Dobart, director general, Austrian Ministry for Education, Art and CultureIt is often overheard in academic environments that 'math is'fun!' This little book on the Pythagorean theorem is surely proof enough, especially since, like the theorem, the fun is on almost every page.-Leon M. Lederman, Nobel laureateThe Pythagorean theorem may be the best-known equation in mathematics. Its origins reach back to the beginnings of civilization, and today every student continues to study it. What most nonmathematicians don't understand or appreciate is why this simply stated theorem has fascinated countless generations.In this entertaining and informative book, veteran math educator Alfred S. Posamentier makes the importance of the Pythagorean theorem delightfully clear.He begins with a brief history of Pythagoras and the early use of his theorem by the ancient Egyptians, Babylonians, Indians, and Chinese, who used it intuitively long before Pythagoras's name was attached to it.He then shows the many ingenious ways in which the theorem has been proved visually using highly imaginative diagrams. Some of these go back to ancient mathematicians; others are comparatively recent proofs, including one by the twentieth president of the United States, James A. Garfield.After demonstrating some curious applications of the theorem, Posamentier then explores the Pythagorean triples, pointing out the many hidden surprises of the three numbers that can represent the sides of the right triangle (e.g, 3, 4, 5 and 5, 12, 13). And many will truly amaze the reader.He then turns to the Pythagorean means (the arithmetic, geometric, and harmonic means). By comparing their magnitudes in a variety of ways, he gives the reader a true appreciation for these mathematical concepts.The final two chapters view the Pythagorean theorem from an artistic point of view-namely, how Pythagoras's work manifests itself in music and how the Pythagorean theorem can influence fractals.Posamentier's lucid presentation and gift for conveying the significance of this key equation to those with little math background will inform, entertain, and inspire the reader, once again demonstrating the power and beauty of mathematics!Alfred S. Posamentier, Ph.D. (New York, NY), is dean of the School of Education and professor of mathematics education at The City College of the City University of New York. He has published more than 40 books in the area of mathematics and mathematics education, including The Fabulous Fibonacci Numbers, Pi: A Biography of the World's Most Mysterious Number, and Math Charmers: Tantalizing Tidbits for the Mind.

God, Physics, and the Gender Wars

Music, Science, and the Natural Order of the Universe

Pythagoras and the Pythagoreans

The Story of Its Power and Beauty

Sound Unseen

Absolute Music

Music and Mathematics

Occult traditions have inspired musical ingenuity for centuries. From the Pythagorean concept of a music of the spheres to the occult subculture of 20th-century pop and rock, music has often attempted to express mystical states of mind, cosmic harmony, the demonic and the divine—nowhere more so, perhaps, than in the music for films such as The Mephisto Waltz, The Devil Rides Out, Star Trek, Close Encounters of the Third Kind, The Omen and The Exorcist. This survey explores how such film music works and uncovers its origins in Pythagorean and Platonic ideas about the divine order of the universe and its essentially numerical/musical nature. Chapters trace the influence of esoteric Freemasonry on Mozart and Beethoven, the birth of “demonic” music in the 19th century with composers such as Weber, Berlioz and Liszt, Wagner’s racial mysticism, Schoenberg’s numerical superstition, the impact of synesthesia on art music and film, the effect of theosophical ideas on composers such as Scriabin and Holst, supernatural opera and ballet, fairy music and, finally, popular music in the 1960s and ’70s.

When it comes to musical skill, why is it that some people achieve so much more than others? We are frequently led to believe this is because of a talent hardwired into their DNA. The author dismisses that notion in favour of another known factor: practice. This book demonstrates how the quality and quantity of practice is the greatest predictor of musical success, so that aspiring musicians of all ages and abilities can best bring about expert performance.--

In ancient Greek thought, the musical scale discovered by the philosopher Pythagoras was seen as a utopian model of the harmonic order behind the structure of the cosmos and human existence. Through proportion and harmony, the musical scale bridges the gap between two extremes. It encapsulates the most fundamental pattern of harmonic symmetry and demonstrates how the phenomena of nature are inseparably related to one another through the principle of reciprocity. Because of these relationships embodied in its structure, the musical scale was seen as an ideal metaphor of human society by Plato and other Pythagorean thinkers, for it is based on the cosmic principles of harmony, reciprocity, and proportion, whereby each part of the whole receives its just and proper share. This book is the first ever complete translation of The Manual of Harmonics by the Pythagorean philosopher Nicomachus of Gerasa (second century A.D.) published with a comprehensive, chapter-by-chapter commentary. It is a concise and well-organized introduction to the study of harmonics, the universal principles of relation embodied in the musical scale. Also included is a remarkable chapter-by-chapter commentary by the translator, Flora Levin, which makes this work easily accessible to the reader today. Dr. Levin explains the principles of Pythagorean harmony, provides extensive background information, and helps to situate Nicomachus' thought in the history of ideas. This important work constitutes a valuable resource for all students of ancient philosophy, Western cosmology, and the history of music.

Sir Kenneth Clark wrote in the Architectural Review, that the first result of this book was “to dispose, once and for all, of the hedonist, or purely aesthetic, theory of Renaissance architecture,' and this defines Wittkower's intention in a nutshell.

An Esoteric Survey from Pythagoras to Pop Culture

An Anthology of Ancient Writings Which Relate to Pythagoras and Pythagorean Philosophy

A History

Music

From Music to Mathematics

Pythagoras

Philosophy of Music

Taking a "music first" approach, Gareth E. Roberts's From Music to Mathematics will inspire students to learn important, interesting, and at times advanced mathematics. Ranging from a discussion of the geometric sequences and series found in the rhythmic structure of music to the phase-shifting techniques of composer Steve Reich, the musical concepts and examples in the book motivate a deeper study of mathematics. Comprehensive and clearly written, From Music to Mathematics is designed to appeal to readers without specialized knowledge of mathematics or music. Students are taught the relevant concepts from music theory (notation, scales, intervals, the circle of fifths, tonality, etc.), with the pertinent mathematics developed alongside the related musical topic. The mathematics advances in level of difficulty from calculating with fractions, to manipulating trigonometric formulas, to constructing group multiplication tables and proving a number is irrational. Topics discussed in the book include [Rhythm](#) [Introductory music theory](#) [The science of sound](#) [Tuning and temperament](#)[Symmetry in music](#) [The Bartók controversy](#) [Change ringing](#) [Twelve-tone music](#)[Mathematical modern music](#) [The Hemachandra–Fibonacci numbers and the golden ratio](#)[Magic squares](#) [Phase shifting](#) Featuring numerous musical excerpts, including several from jazz and popular music, each topic is presented in a clear and in-depth fashion. Sample problems are included as part of the exposition, with carefully written solutions provided to assist the reader. The book also contains more than 200 exercises designed to help develop students' analytical skills and reinforce the material in the text. From the first chapter through the last, readers eager to learn more about the connections between mathematics and music will find a comprehensive textbook designed to satisfy their natural curiosity.

Biography of the Greek philosopher Pythagoras and his lasting contributions on the fields of mathematics and philosophy.

From Ancient Greek times, music has been seen as a mathematical art, and this relationship has fascinated generations. This new in paperback edition of diverse, comprehensive and fully-illustrated papers, authored by leading scholars, links the two fields in a lucid manner that is suitable for students of each subject as well as the general reader.

Why did Pythagoras pause outside a Blacksmith's workshop? Can the nature of Harmony really be understood visually? Why do harmonies leave gaps or 'commas' when added together? In this charming little book Anthony Ashton uses a Victorian device called a Harmonograph to tell the story of Harmony and the intervals in the scale. With useful appendices and exquisite line drawings this is a unique and original introduction to this timeless subject. WOODEN BOOKS are small but packed with information. "e;Fascinating"e; FINANCIAL TIMES. "e;Beautiful"e; LONDON REVIEW OF BOOKS. "e;Rich and Artful"e; THE LANCET. "e;Genuinely mind-expanding"e; FORTEAN TIMES. "e;Excellent"e; NEW SCIENTIST. "e;Stunning"e; NEW YORK TIMES. Small books, big ideas.

How an Ancient Brotherhood Cracked the Code of the Universe and Lit the Path from Antiquity to Oute

Pythagoras and the Disharmony of the World

Music in the Works of Pythagoras of Samos and the Pythagoreans

The Pythagorean Plato

The Music of Pythagoras

Mathematics in Ten Great Ideas

The Persistence of Pythagorean Mathematics in Ancient Musical Thought

The timeless brilliance of this exhaustive survey of the best classical writers of antiquity on Pythagoras was first published in 1687 in Thomas Stanley’s massive tome, The History of Philosophy. It remains as contemporary today as it was over three hundred years ago. The text of the 1687 book has been reset and modernized to make it more accessible to the modern reader. Spelling has been regularized, obsolete words not found in a modern dictionary have been replaced, and contemporary conventions of punctuation have been used. Biographical sketches of Thomas Stanley and Pythagoras by Manly Palmer Hall, founder of the Philosophical Research Society, have been included, along with a profound overview of Pythagorean philosophy by Platonic scholar Dr. Henry L. Drake. The extensive Greek language references throughout the text have been corrected and contextualized, and reset in a modern Greek font. Each quotation has been verified with the source document in Greek. An extensive annotated appendix of these classical sources is included. A complete bibliography details all the reference works utilized, and a small Glossary defines a number of terms, especially those from musical theory, which may be unfamiliar to the non-technical reader.

An exploration of one of the most celebrated and well-known theorems in mathematics By any measure, the Pythagorean theorem is the most famous statement in all of mathematics. In this book, Eli Maor reveals the full story of this ubiquitous geometric theorem. Although attributed to Pythagoras, the theorem was known to the Babylonians more than a thousand years earlier. Pythagoras may have been the first to prove it, but his proof—if indeed he had one—is lost to us. The theorem itself, however, is central to almost every branch of science, pure or applied. Maor brings to life many of the characters that played a role in its history, providing a fascinating backdrop to perhaps our oldest enduring mathematical legacy.

An ancient tradition holds that Pythagoras discovered the secrets of harmony within a forge when he came across five men hammering with five hammers, producing a wondrous sound. Four of the five hammers stood in a marvelous set of proportions, harmonizing; but there was also a fifth hammer. Pythagoras saw and heard it, but he could not measure it; nor could he understand its discordant sound. Pythagoras therefore discarded it. What was this hammer, such that Pythagoras chose so decidedly to reject it?Since antiquity, "harmony" has been a name for more than a theory of musical sounds; it has offered a paradigm for the scientific understanding of the natural world. Nature, through harmony, has been transcribed in the ideal signs of mathematics. But, time and again, the transcription has run up against one fundamental limit: something in nature resists being written down, transcribed in a stable set of ideal elements. A fifth hammer, obstinately, continues to sound. In eight chapters, linked together as are the tones of a single scale, The Fifth Hammer explores the sounds and echoes of that troubling percussion as they make themselves felt on the most varied of attempts to understand and represent the natural world. From music to metaphysics, aesthetics to astronomy, and from Plato and Boethius to Kepler, Leibniz, and Kant, this book explores the ways in which the ordering of the sensible world has continued to suggest a reality that no notes or letters can fully transcribe.

One of the most important mathematical theorems is named after Pythagoras of Samos, but this semi-mythical Greek sage has more to offer than formulas. He is said to have discovered the numerical nature of the basic consonances and transposed the musical proportions to the cosmos, postulating a "harmony of the spheres." He may have coined the words "cosmos" and "philosophy." He is also believed to have taught the doctrine of transmigration of souls and therefore to have advised a vegetarian diet. Ancient legends have Pythagoras conversing with dogs, bears, and bulls. A distinctly Pythagorean way of life, including detailed ritual regulations, was observed by his disciples, who were organized as a secret society. Later, Pythagorean and Platonic teachings became fused. In this Platonized form, Pythagoreanism has remained influential through medieval Christianity and the Renaissance down to the present. Christoph Riedweg's book is an engaging introduction to the fundamental contributions of Pythagoras to the establishment of European culture. To penetrate the intricate maze of lore and ascertain what history can tell us about the philosopher, Riedweg not only

examines the written record but also considers Pythagoras within the cultural, intellectual, and spiritual context of his times. The result is a vivid overview of the life and teachings of a crucial Greek thinker and his most important followers.

A 4,000-Year History

The Manual of Harmonics of Nicomachus the Pythagorean From Pythagoras to Schoenberg

Pythagoras' Legacy

His Lives and the Legacy of a Rational Universe

Mathematics and Music

Harmonograph

This anthology, the largest collection of Pythagorean writings ever to appear in English, contains the four ancient biographies of Pythagoras and over 25 Pythagorean and Neopythagorean writings from the Classical and Hellenistic periods. The material of this book is indispensable for anyone who wishes to understand the real spiritual roots of Western civilization.

A fascinating portrait of the Pythagorean tradition, including a substantial account of the Neo-Pythagorean revival, and ending with Johannes Kepler on the threshold of modernism.

In Pi (π) in Nature, Art, and Culture Marcel Danesi investigates the manifestations of π in science, nature, symbolism, and culture, arguing that these are intrinsically intertwined.

As the famous Pythagorean statement reads, "Number rules the universe", and its veracity is proven in the many mathematical discoveries that have accelerated the development of science, engineering, and even philosophy. A so called ", mathematics has guided and stimulated many aspects of human innovation down through the centuries. In this book, Marcel Danesi presents a historical overview of the ten greatest achievements in mathematics, and dynamically explores their importance and effects on our daily lives. Considered as a chain of events rather than isolated incidents, Danesi takes us from the beginnings of modern day mathematics with Pythagoras, through the concept of zero, right the way up to modern computational algorithms. Loaded with thought-provoking practical exercises and puzzles, Pythagoras' Legacy allows the reader to apply their knowledge and discover the significance of mathematics in their everyday lives.

A Mathematical Mystery

The Musical Structure of Plato's Dialogues

The Pythagorean Theorem

Music in the works of Pythagoras of Samos and the Pythagoreans

The Fifth Hammer

Pythagoras' Trousers

The History of an Idea

How music has influenced mathematics, physics, and astronomy from ancient Greece to the twentieth century Music is filled with mathematical elements. The works of Bach are often said to possess a math-like logic, and Arnold Schoenberg, Iannis Xenakis, and Karlheinz Stockhausen wrote music explicitly based on mathematical principles. Yet Eli Maor argues that it is music that has had the greater influence on mathematics, not the other way around. Starting with Pythagoras, proceeding through Schoenberg, and bringing the story up to the present with contemporary string theory, Music by the Numbers tells a fascinating story of composers, scientists, inventors, and eccentrics who have played a role in the age-old relationship between music, mathematics, and the physical sciences. Weaving compelling stories of historical episodes with Maor's personal reflections as a mathematician and lover of classical music, this book will delight anyone who loves math and music.

"A dauntingly ambitious, obsessively researched" (Los Angeles Times) global history of music that reveals how songs have shifted societies and sparked revolutions. Histories of music overwhelmingly suppress stories of the outsiders and rebels who created musical revolutions and instead celebrate the mainstream assimilators who borrowed innovations, diluted their impact, and disguised their sources. In Music: A Subversive History, Ted Gioia reclaims the story of music for the riffraff, insurgents, and provocateurs. Gioia tells a four-thousand-year history of music as a global source of power, change, and upheaval. He shows how outcasts, immigrants, slaves, and others at the margins of society have repeatedly served as trailblazers of musical expression, reinventing our most cherished songs from ancient times all the way to the jazz, reggae, and hip-hop sounds of the current day. Music: A Subversive History is essential reading for anyone interested in the meaning of music, from Sappho to the Sex Pistols to Spotify.

The enthralling story of Pythagoras and the Pythagoreans, whose insights transformed the ancient world and still inspire the realms of science, mathematics, philosophy, and the arts. "Pythagoras's influence on the ideas, and therefore on the destiny, of the human race was probably greater than that of any single man before or after him," wrote Arthur Koestler. Though most people know of him only for the famous Pythagorean Theorem (a2 +b2=c2), in fact the pillars of our scientific tradition-belief that the universe is rational, that there is unity to all things, and that numbers and mathematics are a powerful guide to truth about nature and the cosmos-hark back to the convictions of this legendary sixth-century B.C. scholar. Born around 570 B.C. on the cultured Aegean island of Samos, Pythagoras (according to ancient tales) studied with the sage Thales nearby at Miletus, and with priests and scribes in Egypt and Babylon. Eventually he founded his own school at Croton in southern Italy, where he and his followers began to unravel the surprising deep truths concealed behind such ordinary tasks as tuning a lyre. While considering why some string lengths produced beautiful sounds and others discordant ones, they uncovered the ratios of musical harmony, and recognized that hidden behind the confusion and complexity of nature are patterns and orderly relationships. They had surprised the Creator at his drafting board and had glimpsed the mind of God! Some of them later would also find something darker in numbers and nature: irrationality, a revelation so unsettling and subversive that it may have contributed to the destruction of their brotherhood.

The subject of this book, as per the title, is music (from the Greek μουσική τέχνη - musiké téchne, i.e. "the art of the muses") in the works of Pythagoras, the first intellectual in the history ofPhilosophy to make that art the center of his worldview, even including it in the so called "Exact Sciences". In order to have better grasp and clarity regarding the intellectual production ofPythagoras, whose written works survived to the 21st century in a very fragmented form and inmuch smaller number, it is necessary to research the historical sources contemporary to thephilosopher, as well as those which succeededed him.

Architectural Principles in the Age of Humanism

Pioneering Mathematician and Musical Theorist of Ancient Greece

Numerology or What Pythagoras Wrought

The Pythagorean Sourcebook and Library

His Life, Teaching, and Influence

Music by the Numbers

Geometry as a Hermeneutic Science

Pythagoric life accompanied by fragments of the ethical writings of certain Pythagoreans in the Doric dialect and a collection of Pythagoric sentences from Stobaeus and others.

Numerology is the belief that numbers have power over events. It is a descendent of number mysticism, the belief the contemplation of numbers can give mystical and non-rational insights into life, the universe, and everything. Twenty-five hundred years ago, Pythagoras originated number mysticism, crediting certain numbers with characteristics, though numerology is a more recent invention that allots numbers, hence, characteristics to individuals. Underwood Dudley outlines here the history of number mysticism and numerology and gives many examples, including biorhythms, Bible-numberists, pyram.

Professor of Music at Colgate University and a widely respected musicologist, Godwin traces the history of the idea, held since ancient times, that the whole cosmos, with its circling planets and stars, is in some way a musical or harmonious entity. The author shows how this concept has continued to inspire philosophers, astronomers, and mystics from antiquity to the present day.

Pythagoras (c. 570 - c. 495 BC), arguably the most influential thinker among the Presocratics, emerges in ancient tradition as a wise teacher, an outstanding mathematician, an influential politician, and as a religious and ethical reformer. He claimed to possess supernatural powers and was the kind of personality who attracted legends. In contrast to his controversial and elusive nature, the early Pythagoreans, such as the doctors Democedes and Alcmaeon, the Olympic victors Milon and Iccus, the botanist Menestor, the natural philosopher Hippon, and the mathematicians Hippiasus and Theodorus, all appear in our sources as 'rational' as they can possibly be. It was this 'normality' that ensured the continued existence of Pythagoreanism as a philosophical and scientific school till c. 350 BC. This volume offers a comprehensive study of Pythagoras and the early Pythagoreans through an analysis of the many representations of the Teacher and his followers, allowing the representations to complement and critique each other. Relying predominantly on sources dating back to before 300 BC, Zhmud portrays a more historical picture of Pythagoras, of the society founded by him, and of its religion than is known from the late antique biographies. In chapters devoted to mathematical and natural sciences cultivated by the Pythagoreans and to their philosophies, a critical distinction is made between the theories of individual figures and a generalized 'all-Pythagorean teaching', which is known from Aristotle.

Pythagoras, Kepler, and the Music of the Spheres

The Music of the Spheres

Pythagoras and the Ratios

Pi () in Nature, Art, and Culture

Iamblichus' Life of Pythagoras

Pythagoras and the Early Pythagoreans

His Life and Teaching, a Compendium of Classical Sources

Sound coming from outside the field of vision, from somewhere beyond, holds a privileged place in the Western imagination. When separated from their source, sounds seem to manifest transcendent realms, divine powers, or supernatural forces. According to legend, the philosopher Pythagoras lectured to his disciples from behind a veil, and two thousand years later, in the age of absolute music, listeners were similarly fascinated with disembodied sounds, employing various techniques to isolate sounds from their sources. With recording and radio came spatial and temporal separation of sounds from sources, and new ways of composing music. Sound Unseen: Acousmatic Sound in Theory and Practice explores the phenomenon of acousmatic sound. An unusual and neglected word, "acousmatic" was first introduced into modern parlance in the mid-1960s by avant garde composer of musique concr è te Pierre Schaeffer to describe the experience of hearing a sound without seeing its cause. Working through, and often against, Schaeffer's ideas, Brian Kane presents a powerful argument for the central yet overlooked role of acousmatic sound in music aesthetics, sound studies, literature, philosophy and the history of the senses. Kane investigates acousmatic sound from a number of methodological perspectives -- historical, cultural, philosophical and musical -- and provides a framework that makes sense of the many surprising and paradoxical ways that unseen sound has been understood. Finely detailed and thoroughly researched, Sound Unseen pursues unseen sounds through a stunning array of cases -- from Bayreuth to Kafka's "Burrow," Apollinaire to Zizek, music and metaphysics to architecture and automata, and from Pythagoras to the present-to offer the definitive account of acousmatic sound in theory and practice. The first major study in English of Pierre Schaeffer's theory of "acousmatics," Sound Unseen is an essential text for scholars of philosophy of music, electronic music, sound studies, and the history of the senses.

Julie Ellis and Phyllis Hornung Peacock team up once again to explore Pythagorean ratios in this humorous sequel to WHAT'S YOUR ANGLE, PYTHAGORAS? Pythagoras and his cousins want to win a music contest, but first they must figure out how to play their instruments in tune, something that's never been done before. While trying to fix the problem, Pythagoras makes an important discovery--notes that sound pleasant together have a certain mathematical relationship. When Pythagoras applies this ratio to his cousins' pipes and lyres, the result is music to the ears.

The enthralling story of Pythagoras and the Pythagoreans, whose insight transformed the ancient world and still inspire the realms of science, mathematics, philosophy and the arts. Einstein said that the most incredible thing about our universe was that it was comprehensible at all. As Kitty Ferguson explains in this eye-opening new book, Pythagoras had much the same idea - but 2,500 years earlier. Though many know him only for the so-called Pythagorean theorem, in fact the pillars of our scientific tradition - the belief that the universe is rational, that there is unity to all things, and that numbers and mathematics are a powerful guide to truth about nature and the cosmos - hark back to the convictions of this legendary scholar and his ancient followers. Alongside the poignant human saga, Kitty Ferguson brilliantly evokes Pythagoras' ancient world, showing how his ideas spread in antiquity and in the Middle Ages, and chronicles the incredible influence he and his followers have had on extraordinary people - from Plato to Bertrand Russell - throughout the history of Western thought and science.

THE Translation of this venerable Piece of Antiquity is undertook upon a double Score; being designed as well to entertain the Curiosity of the Learned, as to supply the Defects of the Ignorant. If the original Language would have been more acceptable to the one, it would have been less intelligible to the other. I cannot, without uttering a Falsity, venture to affirm that so singular and valuable a Piece will be made Public, at least as yet: And in the mean Time I shall flatter myself, that this little Essay may contribute in some sort or other to the diversion, if not Instruction, of People in every Condition of Life. If this is well received, the other Parts will make their Appearance at proper Distances of Time. I publish no more at present, because I would not be thought to impose too much upon any one's Patience; as for losing my own Labour, I am under no bad Apprehensions about that; for the Reader cannot reject with a greater Disdain, than I have translated with Pleasure, the Contents of this Book.

A Subversive History

A Diderot Mathematical Forum

Exploring the Connections

Pythagoras' Revenge

Learning Strategies for Musical Success

The Pythagorean Tradition in Music

Ranging from Antiquity to contemporary analytic philosophy, it provides a concise but thorough analysis of the arguments developed by some of the most outstanding philosophers of all times. Besides the aesthetics of music proper, the volume touches upon metaphysics, ethics, philosophy of language, psychology, anthropology, and scientific developments that have influenced the philosophical explanations of music.

Starting from the very origins of philosophy in Western thought (Pythagoras, Plato, Aristotle) the book talks about what music is according to Augustine, Descartes, Leibniz, Rousseau, Kant, Hegel, the Romantics, Schopenhauer, Nietzsche, Wittgenstein, Susanne Langer, Bloch, Adorno, and many others. Recent developments within the analytic tradition are illustrated with particular attention to the ontology of the musical artwork and to the problem of music and emotions. A fascinating idea which recurs throughout the book is that philosophers allow for a sort of a secret kinship between music and philosophy, as means to reveal complementary aspects of truth.