Discoveries And Opinions Of Galileo By Galileo Galilei

Since the publication in 1896 of Andrew Dickson White's classic History of the Warfare of Science with Theology in Christendom, no comprehensive history of the subject has appeared in the English language. Although many twentieth-century historians have written on the relationship between Christianity and science, and in the process have called into question many of White's conclusions, the image of warfare lingers in the public mind. To provide an up-to-date alternative, based on the best available scholarship and written in nontechnical language, the editors of this volume have assembled an international group of distinguished historians. In eighteen essays prepared especially for this book, these authors cover the period from the early Christian church to the twentieth century, offering fresh appraisals of such encounters as the trial of Galileo, the formulation of the Newtonian worldview, the coming of Darwinism, and the ongoing controversies over ?scientific creationism.” They explore not only the impact of religion on science, but also the influence of science and religion. This landmark volume promises not only to silence the persistent rumors of war between Christianity and science, but also serve as the point of departure for new explorations of their relationship, Scholars and general readers alike will find it provocative and readable.

The tender, inspiring relationship between Galileo and his daughter, a nun, is revealed through letters written between the two. Reprint.

For more than 30 years, historians have rejected what they call the ‘warfare thesis’ – the idea that there is an inevitable conflict between religion and science – insisting that scientists and believers can live in harmony. This book disagrees. Taking as its starting point the most famous of all such conflicts, the Galileo affair, it argues that religious and scientific communities exhibit very different attitudes to knowledge. Scripturally based religions not only claim a source of knowledge distinct from human reason. They are also bound by tradition, insist upon the certainty of their beliefs, and are resistant to radical criticism in ways in which the sciences are not. If traditionally minded believers perceive a clash between what their faith tells them and the findings of modern science, they may well do what the Church authorities did in Galileo’s time. They may attempt to close down the science, insisting that the authority of God’s word trumps that of any ‘merely human’ knowledge. Those of us who value science must take care to ensure this does not happen.

Directing his polemics against the pedantry of his time, Galileo, as his own popularizer, addressed his writings to contemporary laymen. His support of Copernican cosmology, against the Church's strong opposition, his development of a telescope, and his unorthodox opinions as a philosopher of science were the central concerns of his career and the subjects of four of his most important writings. Drake's introductory essay place them in their biographical and historical context.

This installment in a series on science and technology in world history begins in the fourteenth century, explaining the origin and nature of scientific methodology and the relation of science to religion, philosophy, military history, economics and technology. Specific topics covered include the Black Death, the Little Ice Age, the invention of the printing press, Martin Luther and the Reformation, the birth of modern medicine, the Copernican Revolution, Galileo, Kepler, Isaac Newton, and the Scientific Revolution.

Although the Scientific Revolution has long been regarded as the beginning of modern science, there has been little consensus about its true character. While the application of mathematics to the study of the natural world has always been recognized as an important factor, the role of experiment has been less clearly understood. Peter Dear investigates the nature of the change that occurred during this period, focusing particular attention on evolving notions of experience and how these developed into the experimental work that is at the center of modern science. He examines seventeenth-century mathematical sciences—astronomy, optics, and mechanics—not as abstract ideas, but as vital enterprises that involved practices related to both experience and experiment. Dear illuminates how mathematicians and natural philosophers of the period—Mersenne, Descartes, Pascal, Barrow, Newton, Boyle, and the Jesuits—used experience in their argumentation, and how and why these approaches changed over the course of a century. Drawing on mathematical texts and works of natural philosophy from all over Europe, he describes a process of change that was gradual, halting, sometimes contradictory—far from the sharp break with intellectual tradition implied by the term "revolution."

In order to reconcile the discrepancies between ancient and modern cosmology, confessional scholars from every viewpoint on the interpretation of the early chapters of Genesis agree that God accommodated language to finite human understanding. But in the history of interpretation, no consensus has emerged regarding what accommodation entails at the linguistic level. More precise consideration of how the ancient cognitive environment functions in the informative intention of the divine and human authors is necessary. Not only does relevance theory validate interpretative options that are inherently most probable within the primary communication situation, but the application of relevance theory can also help disentangle the complexities of dual authorship inherent in any model of accommodation. The results also make a salutary contribution to the theological reading of Scripture.

Four short works illuminate the discoveries and the philosophy of the Italian astronomer and physicist who fought for the scientist's release from religious and political influences.

Was Isaac Newton, considered by many to be the most important scientist of all time, actually a mystical occultist? Was Galileo, often viewed as science's greatest voice of reason, to blame for his conflict with the Catholic Church? Four Treatises for the Reconsideration of the History of Science examines these and

other momentous episodes in the history of science by shedding light on some of the more prevalent misconceptions regarding our views concerning the genesis of science. Historian and freelance writer, Fabio J. A. Farina, provides an excellent academic introduction to four important case studies necessary for understanding the historical contexts that have influenced science. His arguments show that there is a far more complex interplay of issues, ideologies, and philosophies rather than the simple rationalist evolution as many may view it today. The many interesting concepts and viewpoints presented in this small yet invaluable collection will undoubtedly fuel interest for further research and future discussions.

A provocative examination of the 1633 trial of Galileo by the Inquisition contends that the Galileo incited the opinions of his prosecutors by arguing against spirituality and that the disagreement was more about the nature of truth than about religious differences. 15,000 first printing.

This volume examines the New Science of the 17th century in the context of Baroque culture, analysing its emergence as an integral part of the high culture of the period. The collected essays explore themes common to the new practices of knowledge production and the rapidly changing culture surrounding them, as well as the obsessions, anxieties and aspirations they share, such as the foundations of order, the power and peril of mediation and the conflation of the natural and the artificial. The essays also take on the historiographical issues involved: the characterization of culture in general and culture of knowledge in particular; the use of generalizations like ‘Baroque’ and the status of such categories; and the role of these in untangling the historical complexities of the tumultuous 17th century. The canonical protagonists of the ‘Scientific Revolution’ are considered, and so are some obscure and suppressed figures: Galileo side by side with Scheiner;Torricelli together with Kircher; Newton as well as Scilla. The coupling of Baroque and Science defies both the still-triumphalist historiographies of the Scientific Revolution and the slight embarrassment that the Baroque represents for most cultural-national histories of Western Europe. It signals a methodological interest in tensions and dilemmas rather than self-affirming narratives of success and failure, and provides an opportunity for reflective critique of our historical categories which is valuable in its own right. ?

While Galileo Galilei was under house arrest, accused of heresy for his claim that the earth revolved around the sun, his daughter Virginia, a cloistered nun, proved to be her father's greatest source of strength through the difficult years of his trial and persecution. Winner of the Christopher Award and named a Notable Book of the Year by the "New York Times". Illustrations.

The modern understanding of the notorious 1633 trial of Galileo is that of Science and Reason persecuted by Ignorance and Superstition—of Galileo as a lonely, courageous freethinker oppressed by a reactionary and anti-intellectual institution fearful of losing its power and influence. But is this an accurate picture? In his provocative reexamination of one of the turning points in the history of science and thought, Wade Rowland

contends that the dispute concerned an infinitely more profound question: What is truth and how can we know it? Rowland demonstrates that Galileo's mistake was to insist that science—and only science—provides the truth about reality. The Church rejected this idea, declaring that while science is valid, truth is a metaphysical issue—beyond physics—and it involves such matters as meaning and purpose, which are unquantifiable and therefore not amenable to scientific analysis. In asserting the primacy of science on the territory of truth, Galileo strayed into the theological realm, an act that put him squarely on a warpath with the Church. The outcome would change the world. Wade Rowland's thoughtful exploration promises to disarm the most stubborn of skeptics and make for scintillating debate.

This collection of essays is a tribute to Stillman Drake by some of his friends and colleagues, and by others on whom his work has had a formative influence. It is difficult to know him without succumbing to his combination of discipline and enthusiasm, even in fields remote from Renaissance physics and natural philosophy; and so he should not be surprised in this volume to see emphases and methods congenial to him, even on topics as remote as Darwin or the chemical revolution. Therein lies whatever unity the discerning reader may find in this book, beyond the natural focus and coherence of the largest section, on Galileo, and the final section on Drake's collection of books, a major and now accessible resource for research in the field that he has made his own. We have chosen, as the occasion for presenting the volume to Stillman Drake, Galileo's birthday; Galileo has had more than one birthday party in Toronto since Drake came to the University of Toronto. As for the title, it reflects a shared conviction that experiment is the key to science; it is what scientists do. Drake has already asserted that emphasis in the title of his magisterial Galileo at Work, and we echo it here. Those who have had the privilege and pleasure of working and arguing with Stillman over the years know his tenacity, penetration, and vigour. They also know his generosity and humility. We owe him much.

A comprehensive update of the best-selling first edition, this revitalized new text presents readers with a series of clear, well-written entries focusing on fifty of the most influential philosophers from the last two thousand years. Chosen to present the traditional mainstream of European philosophy, the text also provides a critical survey that meets the needs of readers seeking a broad basic understanding as well as a foundation for further philosophical enquiry. Encompassing a wide range of ancient, medieval and modern philosophers, features of the second edition include: new entries on Dewey, Collingwood, Popper, Quine, Merleau-Ponty, Ayer and Rawls a thorough revision of existing entries a complete update of the further reading section an expanded glossary the addition of an alphabetical table of contents and an index for ease of use. Authoritative and highly readable, this book is a vital reference tool for all those wishing to improve their understanding of some of the world's most fascinating intellectual figures.

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This 3 volume collection includes 80 of the 130 papers published by Drake, most on Galileo but some on medieval and early modern science in general (principally mechanics). An essential supplement to Drake's translations and other books.

"Thinking Allegory Otherwise is a unique collection of essays by allegory specialists and other scholars who engage allegory in exciting new ways." "Not limited to an

examination of literary texts and works of art, the essays focus on a wide range of topics, including architecture, philosophy, theater, science, and law. Indeed, all language is allegorical. This collection proves the truth of this statement, but more importantly, it shows the consequences of it. To think allegory otherwise is to think otherwise-forcing us to rethink not only the idea of allegory itself, but also the law and its execution, the literality offigurative abstraction, and the figurations upon which even hard science depends." --Book Jacket.

An absorbing account of the origins of modern science as well as a biography, this book places particular emphasis on Galileo's experiments with telescopes and his observations of the sky.

This book traces out the unfolding history of important discoveries in astronomy and astrophysics, and anchors our present understanding of the Universe within the findings and personalities of accomplished astronomers. They have used telescopes and instruments to extend our vision to places that cannot be seen with the unaided eye, discovered a host of unanticipated objects, found out how various parts of the night sky are related, and discovered that the Universe is larger, more complex, and older than has been previously thought. This comprehensive historical approach to the present state of astronomy is a unique aspect of the book.

For forty years, beginning with the publication of the first modern English translation of the Dialogue Concerning the Two Chief World Systems, Stillman Drake was the most original and productive scholar of Galileo's scientific work of our age. During that time, he published sixteen books on Galileo, including translations of almost all the major writings, and Galileo at Work, the most comprehensive study of Galileo's life and works ever written. His collection Discoveries and Opinions on Galileohas remained in print since its appearance in 1957 and has become the most widely read of all books on Galileo. In addition to his books, Drake published about 130 papers, of which nearly 100 are on Galileo and the rest on related aspects of the history and philosophy of science. This three-volume collection includes eighty of those papers. Drake's papers are an essential supplement to his translations and other books because it was in his papers that he wrote his most detailed technical studies of Galileo's scientific work. There is hardly a subject in Galileo's science that is not considered. Perhaps the most important is the series on mechanics and motion, in which Drake analysed Galileo's manuscript notes recording the experiments by which he discovered and confirmed the law of the acceleration of falling bodies. There are also papers on the notes in which Galileo recorded his discovery of Jupiter's satellites and on other aspects of Galileo's astronomy, including his defence of the Copernican theory. Other papers consider Galileo's life and scientific work in general, exploring what Drake calls the 'scientific personality' of Galileo along with his scientific method and philosophy of science. In addition to the papers on Galileo, there are a number of papers on medieval and early modern science, principally on mechanics, and on the philosophers A.B. Johnson and J.B. Stallo,

both of whom influenced Drake's own philosophy of science.

Considered the paradigm case of the troubled interaction between science and religion, the conflict between Galileo and the Church continues to generate new research and lively debate. Richard J. Blackwell offers a fresh approach to the Galileo case, using as his primary focus the biblical and ecclesiastical issues that were the battleground for the celebrated confrontation. Blackwell's research in the Vatican manuscript collection and the Jesuit archives in Rome enables him to re-create a vivid picture of the trends and counter-trends that influenced leading Catholic thinkers of the period: the conservative reaction to the Reformation, the role of authority in biblical exegesis and in guarding orthodoxy from the inroads of "unbridled spirits," and the position taken by Cardinal Bellarmine and the Jesuits in attempting to weigh the discoveries of the new science in the context of traditional philosophy and theology. A centerpiece of Blackwell's investigation is his careful reading of the brief treatise Letter on the Motion of the Earth by Paolo Antonio Foscarini, a Carmelite scholar, arguing for the compatibililty of the Copernican system with the Bible. Blackwell appends the first modern translation into English of this important and neglected document, which was placed on the Index of Forbidden Books in 1616. Though there were differing and competing theories of biblical interpretation advocated in Galileo's time—the legacy of the Council of Trent, the views of Cardinal Bellarmine, the most influential churchman of his time, and, finally, the claims of authority and obedience that weakened the abillity of Jesuit scientists to support the new science—all contributed to the eventual condemnation of Galileo in 1633. Blackwell argues convincingly that the maintenance of ecclesiastical authority, not the scientific issues themselves, led to that tragic trial.

Despite a debilitating life-long illness, Galileo changed physics from a purely philosophical subject into one involving mathematics and careful observation.Â But his innovations didn't stop there.Â He also challenged beliefs about the very structure of the universe, arguing that the earth moves around the sun at dizzying speeds.Â And, using the telescope, Galileo showed philosophers that the sun, moon, and stars aren't made of an ethereal and unchangeable "fifth element" but are composed of the same stuff that ordinary terrestrial objects are.Â Â Â Â Â Â Â But suggesting such dramatic changes made philosophers uncomfortable.Â And because philosophers were unable to refute Galileo on their own playing field, they sought help from theologians, sending Galileo head long into a conflict with church officials.Â Galileo appealed to church fathers like St. Augustine to prevent the theologians from making what he saw as a tragic mistake.Â But intrigues, personality clashes, and misunderstandings led to Galileo's famous trial and condemnation, events misinterpreted as showing a fundamental conflict between science and religion.

When young children first begin to ask 'why?' they embark on a journey with no final destination. The need to make sense of the world as a whole is an ultimate curiosity that lies at the root of all human religions. It has, in many cultures,

shaped and motivated a more down to earth scientific interest in the physical world, which could therefore be described as penultimate curiosity. These two manifestations of curiosity have a history of connection that goes back deep into the human past. Tracing that history all the way from cave painting to quantum physics, this book (a collaboration between a painter and a physical scientist that uses illustrations throughout the narrative) sets out to explain the nature of the long entanglement between religion and science: the ultimate and the penultimate curiosity.

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