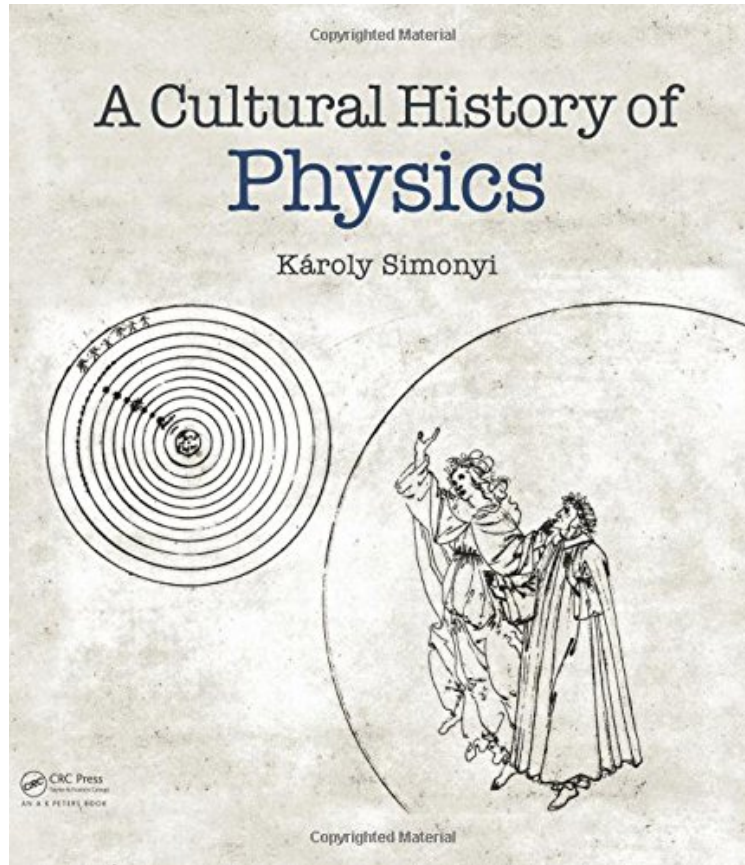


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A Cultural History of Physics

Károly Simonyi

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Károly Simonyi : A Cultural History of Physics before purchasing it in order to gauge whether or not it would be worth my time, and all praised A Cultural History of Physics:

22 of 22 people found the following review helpful. A clear and vivid history of PhysicsBy Sigurdur HelgasonThe appearance of this book by Károly Simonyi is a major publishing event. Originally published in Hungarian in 1978 it has appeared in five Hungarian and three German editions. This first English edition (translated by David Kramer) now appears through the initiative of Alice and Klaus Peters of A K Peters and the author's son Charles Simonyi who writes an engaging Foreword to the book. This new edition ends with an Epilogue by E. Witten, entitled "Looking ahead in Physics". Starting with an introductory essay on the history of physics and its relevance to our lives today the book traces the development of physics from antiquity to the present. The beginning of science with focus on Egypt and Mesopotamia is followed by a very detailed account of the classical Hellenistic period, explaining works of the Pythagoreans and Plato, Socrates, Aristotle and Archimedes. Their work is described in considerable detail through explicit proofs, revealing figures and historical quotations. The next chapter relates how the Hellenistic period was followed by a dormant period in science which stretched into the Renaissance. Then in Chapter 3 the book describes the work of Brahe, Kepler, Galileo, Copernicus, Descartes, Fermat, Huygens, leading to the Newtonian world view.

Chapter 4 is entitled "The Completion of Classical Physics" followed by the last chapter "The Physics of the Twentieth Century". While the text is devoted to the history of physics, it is complemented by very detailed and clear illustrations enabling the reader to acquire real understanding of the arguments. Thus in addition to its historical character, the book can serve as a complement to a textbook. Often the text is supplied with quotations from original sources giving some insight into the pioneering efforts of the originators. Many magnificent drawings and photographs are included. The book brings out the great subject of Physics and its history in a rich and colorful fashion. The book fills 600 large pages and virtually every page contains clarifying figures, diagrams, illustrations, photographs and historical asides. It is also gratifying that in spite of the vibrant production the price of the book has been kept very reasonable. 1 of 1 people found the following review helpful. By a brilliant physicist, for brilliant readers. By jdmcox I agree with the other reviewer that "the writing often strays into the technical and relies on mathematical equations to explain or define concepts of phenomena. IN other words--a recent background in physics is pretty useful..and possibly essential." I realize I don't have to follow the mathematics (and I can't) to learn the value and importance of what so many brilliant men created and added to physics through history. But Karoly Simonyi was obviously brilliant himself, and he was writing to his level of intelligence and not to mine. So I couldn't follow so well his explanations of their brilliant additions to the science of physics. I could give many examples from the book where famous ground-breaking work had been reviewed in depth, but which wasn't explained nearly as well (clearly and understandably) as I've seen elsewhere. I prefer how Richard Feynman thinks -- and explains his thinking (I've read through his Lectures on Physics (without trying to follow the math)). HOWEVER, for those who already feel completely comfortable with physics (naturally quite bright), this would be an EXCELLENT book to have. 0 of 0 people found the following review helpful. Outstanding history of Physics... and no 'Cultural History'... By Noumenon This is an outstanding proper history of physics. The text deserves five stars, but the publisher deserves three stars, for the following reasons, I had passed on buying this book a few times, due to the title including A cultural History..; I did not want to read about how various cultures effected the development of physics, but rather physics itself. However, it turns out, there is actually no culture mentioned in the book apart from perhaps one sentence. Maybe it was a mistranslation, but they should have left the word culture off the title. The book is physically too large (10 X 11) and therefore cumbersome to handle. I prefer to read a physical book, but yet had to take photos and read it on my iPhone/iPad anyway. Also, the layout of the book contains too many unnecessary divisions. For example, three inches of the margin on every page is devoted to quotations, diagrams, bios, etc.. and smaller text is used whenever a more in-depth mathematical presentation of an idea is presented. It would have been better to include all of this sequentially in-line with the main body of text, with the same font. Rendering the book in two volumes would have achieved this and made the book a more manageable size to handle. But these are quibbles to what is otherwise an outstanding work.

While the physical sciences are a continuously evolving source of technology and of understanding about our world, they have become so specialized and rely on so much prerequisite knowledge that for many people today the divide between the sciences and the humanities seems even greater than it was when C. P. Snow delivered his famous 1959 lecture, "The Two Cultures." In *A Cultural History of Physics*, Hungarian scientist and educator Karoly Simonyi succeeds in bridging this chasm by describing the experimental methods and theoretical interpretations that created scientific knowledge, from ancient times to the present day, within the cultural environment in which it was formed. Unlike any other work of its kind, Simonyi's seminal opus explores the interplay of science and the humanities to convey the wonder and excitement of scientific development throughout the ages. These pages contain an abundance of excerpts from original resources, a wide array of clear and straightforward explanations, and an astonishing wealth of insight, revealing the historical progress of science and inviting readers into a dialogue with the great scientific minds that shaped our current understanding of physics. Beautifully illustrated, accurate in its scientific content and broad in its historical and cultural perspective, this book will be a valuable reference for scholars and an inspiration to aspiring scientists and humanists who believe that science is an integral part of our culture.

The book offers a total history of a discipline Simonyi largely succeeds in fostering the public understanding of a science in its broad historical context. In the middle of the book the reader is treated with a sumptuous set of color plates attempting to give an overview of developments in physics interacting with the cultures of the successive periods. its richly illustrated chapters and sections can be enjoyed independently, absorbed and savored slowly, by little doses of the magnificent history of our discipline. Amand A. Lucas, *Il Nuovo Saggiatore* (bulletin of the Italian Physical Society) Simonyi bridges the gap between science and the humanities by presenting the history of physics in the context of the personalities and the culture in which the discoveries were made. The volume is lavishly illustrated with everything from pictures and drawings to facsimiles of pages from seminal research papers. This is an extremely valuable reference for history of science and philosophy library collections. Highly recommended. C.G. Wood, *CHOICE*, July 2012 lavishly illustrated, beautifully executed, with a tremendous number of quotations and unabashed use of equations. The author who unquestionably has an uncommon talent for illustrating and organizing his ideas made a tremendous effort to convey his extensive knowledge to potential readers. My difficulty is of course in being

able to adequately relate the worth of the treasure that the book is in a short review. I doubt that even a long review could give the book its due. There is so much to be found in this book that make using it at all levels, from elementary school to university, interesting, indeed exciting. I am convinced that those who read the book will enjoy the experience and end up with a cherished possession.

Alex Bogomolny, MAA s, June 2012

A Cultural History of Physics takes the reader on an immensely detailed and thoughtful tour. A Cultural History of Physics meticulously explains the specifics of its many examples, and its packed cover to cover with charts, graphs, and diagrams illustrating key physics discoveries and how they revolutionized the world. A working knowledge of algebra or basic calculus will aid the reader in fully understanding specific examples, but the broader picture of human history transformed by science is thoroughly accessible to lay readers. Highly recommended, especially for college and public library science shelves.

Library Bookwatch, April 2012

About the Author

Kroly Simonyi (1916-2001)

Kroly Simonyi was born the seventh of ten children in a small village in Hungary. His talent for learning was apparent early on, and a prominent relative brought him to Budapest and sponsored his education. Simonyi went on to earn degrees in engineering and law. After the tumultuous years of World War II, Simonyi returned to research, ultimately becoming a professor at the Budapest Technical University, where he was known as an outstanding teacher. He organized the Department of Theoretical Electrical Engineering, taught generations of electrical engineers, and published lectures and textbooks that have been translated into many languages. Despite his accomplishments, the political climate of 1960s Hungary was not a favorable one for Simonyi, and his work at the university was increasingly curtailed until he ultimately lost his teaching position altogether. But even this could not keep Simonyi from his work. Though his profession was science, he had always maintained an interest in the humanities, and in his new circumstances he undertook a great project: to tell the story of the history of physics and the cultural, philosophical, and societal movements that had shaped and been shaped by its development. The book that grew out of this project, published first in Hungarian, then in German, and now in English, has been highly successful and widely read.

Charles Simonyi

Creation of the English edition of A Cultural History of Physics has been directed by Kroly's son Charles. A successful entrepreneur, Charles emigrated to the United States as a teenager and went on to become a software engineer at Xerox and at Microsoft, where he oversaw the development of what would become some of Microsoft's most profitable products: Microsoft Word and Microsoft Excel. Charles is a distinguished philanthropist, as well as the Chairman of the Board of Trustees of the Institute for Advanced Study in Princeton.