

Thing Knowledge: A Philosophy of Scientific Instruments

By Davis Baird



Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird

Western philosophers have traditionally concentrated on theory as the means for expressing knowledge about a variety of phenomena. This absorbing book challenges this fundamental notion by showing how objects themselves, specifically scientific instruments, can express knowledge. As he considers numerous intriguing examples, Davis Baird gives us the tools to "read" the material products of science and technology and to understand their place in culture. Making a provocative and original challenge to our conception of knowledge itself, *Thing Knowledge* demands that we take a new look at theories of science and technology, knowledge, progress, and change. Baird considers a wide range of instruments, including Faraday's first electric motor, eighteenth-century mechanical models of the solar system, the cyclotron, various instruments developed by analytical chemists between 1930 and 1960, spectrometers, and more.



Read Online Thing Knowledge: A Philosophy of Scientific Inst ...pdf

Thing Knowledge: A Philosophy of Scientific Instruments

By Davis Baird

Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird

Western philosophers have traditionally concentrated on theory as the means for expressing knowledge about a variety of phenomena. This absorbing book challenges this fundamental notion by showing how objects themselves, specifically scientific instruments, can express knowledge. As he considers numerous intriguing examples, Davis Baird gives us the tools to "read" the material products of science and technology and to understand their place in culture. Making a provocative and original challenge to our conception of knowledge itself, *Thing Knowledge* demands that we take a new look at theories of science and technology, knowledge, progress, and change. Baird considers a wide range of instruments, including Faraday's first electric motor, eighteenth-century mechanical models of the solar system, the cyclotron, various instruments developed by analytical chemists between 1930 and 1960, spectrometers, and more.

Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird Bibliography

Sales Rank: #2637888 in Books
Published on: 2004-02-10
Original language: English

• Number of items: 1

• Dimensions: 9.00" h x .90" w x 6.00" l, 1.24 pounds

• Binding: Hardcover

• 296 pages

▶ Download Thing Knowledge: A Philosophy of Scientific Instru ...pdf

Read Online Thing Knowledge: A Philosophy of Scientific Inst ...pdf

Download and Read Free Online Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird

Editorial Review

From the Inside Flap

"Davis Baird's *Thing Knowledge* uses instruments to do philosophy. Grappling with a wonderful assortment of objects—from antique orreries to modern spectrographs—he draws the reader deep into fascinating questions about the nature of knowledge. All too often, the knowledge Baird pursues here has been obscured by accounts that reduce understanding to theory. By contrast, in this rich text Baird shows the myriad of ways that models and devices do work in science: by representing, by manipulating, by measuring, and by calculating. This is a book as lucid on the semantic account of theories as it is on the inner workings of the cyclotron; it is a book that brings the laboratory to philosophers and philosophy into the laboratory."—Peter Galison, author of *Einstein's Clocks, Poincare's Maps: Empires of Time*

"Davis Baird has given us something new and demanding to think about: namely, in addition to propositional knowledge, he argues, there is 'thing knowledge.' That is, scientific instruments embody or encapsulate knowledge in ways that most often not transparent. In making his case, Baird forces us to reconceptualize how we go about doing science and how to understand the product of human labor, both intellectual and manual. *Thing Knowledge* is must reading for anyone interested in the development of science and its attendant technologies."—Joseph C. Pitt, author of *Thinking About Technology: Foundations of the Philosophy of Technology*

"Over the years the new frontier in philosophy of science has been on logic, then on theories to most recently on models and experimentation. Davis Baird goes one step further and considers the 'immediate' kind of knowledge embodied by scientific instruments and devices. His book is highly thought provoking and will become a classic source."—Eric Scerri, UCLA, Department of Chemistry and Biochemistry, and editor of Foundations of Chemistry.

"From the air pump to the dynamo to the cyclotron, machines have played key roles in the development of scientific knowledge. Here, for the first time, Davis Baird looks at those machines as actual forms of scientific knowledge. Baird moves adeptly from historical case study to philosophical explanation in this convincing study of the material culture of science."—Ann Johnson, Department of History, Fordham University

From the Back Cover

"Davis Baird's "Thing Knowledge uses instruments to do philosophy. Grappling with a wonderful assortment of objects--from antique orreries to modern spectrographs--he draws the reader deep into fascinating questions about the nature of knowledge. All too often, the knowledge Baird pursues here has been obscured by accounts that reduce understanding to theory. By contrast, in this rich text Baird shows the myriad of ways that models and devices do work in science: by representing, by manipulating, by measuring, and by calculating. This is a book as lucid on the semantic account of theories as it is on the inner workings of the cyclotron; it is a book that brings the laboratory to philosophers and philosophy into the laboratory."--Peter Galison, author of "Einstein's Clocks, Poincare's Maps: Empires of Time

"Davis Baird has given us something new and demanding to think about: namely, in addition to propositional knowledge, he argues, there is 'thing knowledge.' That is, scientific instruments embody or encapsulate knowledge in ways that most often not transparent. In making his case, Baird forces us to reconceptualize

how we go about doing science and how to understand the product of human labor, both intellectual and manual. "Thing Knowledge is must reading for anyone interested in the development of science and its attendant technologies."--Joseph C. Pitt, author of "Thinking About Technology: Foundations of the Philosophy of Technology

"Over the years the new frontier in philosophy of science has been on logic, then on theories to most recently on models and experimentation. Davis Baird goes one step further and considers the 'immediate' kind of knowledge embodied by scientificinstruments and devices. His book is highly thought provoking and will become a classic source."--Eric Scerri, UCLA, Department of Chemistry and Biochemistry, and editor of Foundations of Chemistry.

"From the air pump to the dynamo to the cyclotron, machines have played key roles in the development of scientific knowledge. Here, for the first time, Davis Baird looks at those machines as actual forms of scientific knowledge. Baird moves adeptly from historical case study to philosophical explanation in this convincing study of the material culture of science."--Ann Johnson, Department of History, Fordham University

About the Author

Davis Baird, Professor and Chair of Philosophy at the University of South Carolina, is author of *Inductive Logic: Inferring the Unknown* (1999) and coeditor of *Heinrich Hertz: Classical Physicist, Modern Philosopher* (1997).

Users Review

From reader reviews:

Jim Martin:

Do you have favorite book? In case you have, what is your favorite's book? Publication is very important thing for us to understand everything in the world. Each book has different aim or even goal; it means that reserve has different type. Some people experience enjoy to spend their time for you to read a book. They are reading whatever they take because their hobby will be reading a book. What about the person who don't like examining a book? Sometime, man feel need book if they found difficult problem or exercise. Well, probably you should have this Thing Knowledge: A Philosophy of Scientific Instruments.

Charles Hager:

In this 21st one hundred year, people become competitive in most way. By being competitive today, people have do something to make these individuals survives, being in the middle of often the crowded place and notice by simply surrounding. One thing that oftentimes many people have underestimated the item for a while is reading. Yeah, by reading a publication your ability to survive improve then having chance to stand up than other is high. For you who want to start reading a new book, we give you this Thing Knowledge: A Philosophy of Scientific Instruments book as beginner and daily reading guide. Why, because this book is more than just a book.

James Jackson:

The book untitled Thing Knowledge: A Philosophy of Scientific Instruments contain a lot of information on that. The writer explains your girlfriend idea with easy means. The language is very easy to understand all the people, so do not necessarily worry, you can easy to read it. The book was authored by famous author. The author gives you in the new era of literary works. It is possible to read this book because you can please read on your smart phone, or product, so you can read the book within anywhere and anytime. In a situation you wish to purchase the e-book, you can open up their official web-site and order it. Have a nice read.

Ann Lang:

You can find this Thing Knowledge: A Philosophy of Scientific Instruments by go to the bookstore or Mall. Just viewing or reviewing it could to be your solve issue if you get difficulties to your knowledge. Kinds of this e-book are various. Not only by written or printed but additionally can you enjoy this book by simply e-book. In the modern era like now, you just looking by your mobile phone and searching what your problem. Right now, choose your personal ways to get more information about your book. It is most important to arrange you to ultimately make your knowledge are still upgrade. Let's try to choose right ways for you.

Download and Read Online Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird #P6JQIXBU0ET

Read Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird for online ebook

Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird books to read online.

Online Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird ebook PDF download

Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird Doc

Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird Mobipocket

Thing Knowledge: A Philosophy of Scientific Instruments By Davis Baird EPub