

hitherto unknown patterns of species richness and endemism than those we know from the few well-studied taxa. Moreover, it is readily exportable to continents where even fewer species are known and mapped.

Ecologists readily erect ad-hoc explanations for these patterns. Unfortunately, none of the explanations predicts which taxa should be similar and which different. I may believe the explanation of why snails have an inordinate fondness for Appalachia, but what in that explanation tells me that it is one that amphibians share, but not reptiles? Surely we must integrate what we know about how trees create a wood with the history of how the trees got there in the first place. Reading this book is a great way to start such integration. Its conservation message is a powerful enjoiner to do so immediately. ■

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## Italian art's bequest to science

**La Ragione e il Metodo. Immagini della Scienza Nell'Arte Italiana dal XVI al XIX secolo [Reason and Method. Images of Science in Italian Art From the 16th to the 19th Centuries]**

edited by Marco Bona Castellotti, Enrico Gamba and Fernando Mazzocca  
Electa: 1999. 206 pp. DM118

**Pietro Corsi**

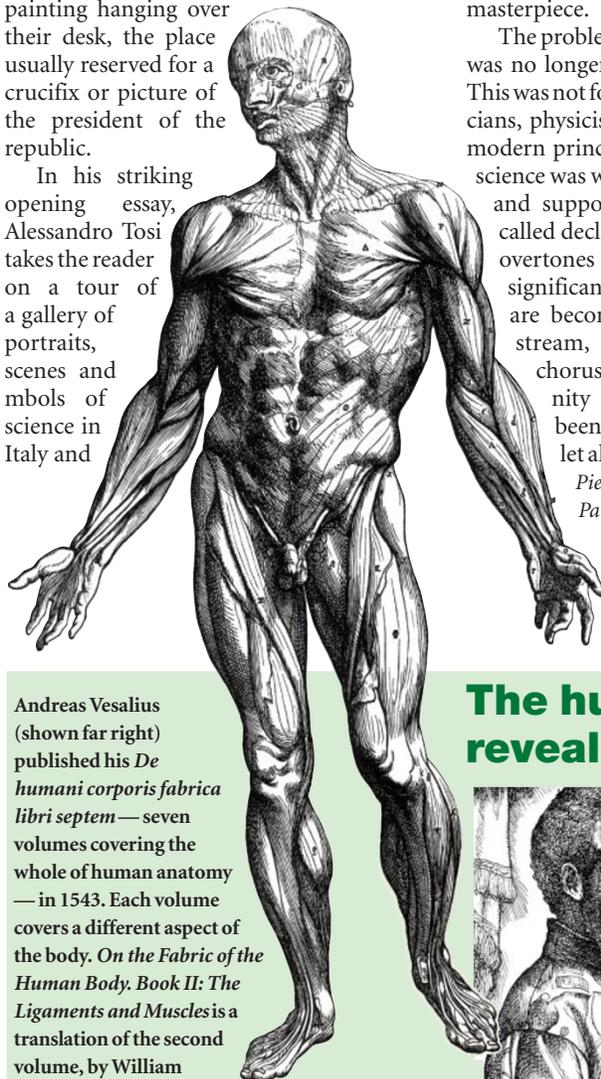
For the past 20 years or so, historians of science have paid renewed attention to the role of images in the development of modern science and medicine. True, the splendid tables of Andreas Vesalius' *De humani corporis fabrica* have always elicited admiration and stimulated research. But the recent revival in interest has seen many exhibitions and books, such as the 1994 exhibition *L'âme au corps*, shown at the Grand Palais in Paris, co-authored by Jean Clair and Jean-Pierre Changeux, and devoted to the relationship between science and the arts from the 1790s to today.

*La Ragione e il Metodo* is the permanent legacy of another exhibition, smaller in scope, but no less ambitious. It started with the decision by the city council of Crema, a wealthy town in northern Italy, to celebrate the 90th anniversary of the death of Giovanni Vailati, a mathematician and philosopher of science who was active at the end of the last century and the beginning of the present one. This was a further instance of the cultural ferment still to be found in provincial Italian towns willing to undertake

ambitious scholarly programmes.

As the title of the exhibition's catalogue suggests, the focus of the exhibition was the "images of science in Italian art, from the 16th to the 19th centuries". In other words, the ways in which scientific developments were represented in paintings, and in their full ideological, polemical and allegorical robes. Since Galileo's trial for heresy and his subsequent condemnation, Italian science has been at the centre of a long-lasting, at times patchy, ideological war. Indeed, one of the most famous paintings on show, the *Portrait of Galileo* by Giusto Suttermans, completed in 1635, until recently conveyed a message that transcended both science and art: you could tell a lot about a person's intellectual and ideological position if you knew whether or not they had a copy of the painting hanging over their desk, the place usually reserved for a crucifix or picture of the president of the republic.

In his striking opening essay, Alessandro Tosi takes the reader on a tour of a gallery of portraits, scenes and models of science in Italy and



Andreas Vesalius (shown far right) published his *De humani corporis fabrica libri septem*—seven volumes covering the whole of human anatomy—in 1543. Each volume covers a different aspect of the body. *On the Fabric of the Human Body. Book II: The Ligaments and Muscles* is a translation of the second volume, by William Frank Richardson with John Burd Carman (Norman Publishing, \$250). It highlights the skills of Vesalius the dissector, and contains all the well-known full-length muscle plates (above). These take the reader through a dissection sequence that unveils the human body layer by layer. Vesalius' detailed instructions for their use are given in full.

Europe. The scope of the catalogue, although focusing on Italian painters, is not limited to science on the peninsula. Thus, Giovanni Battista Pittoni at the end of the eighteenth century, and Pelagio Pelagi in 1827, paid homage to Isaac Newton through powerful pictorial inventions. However, from the second half of the eighteenth century and throughout the nineteenth century, Italian artists generally looked less kindly on the sciences. It was their French, British and American colleagues — from Joseph Wright of Derby and Jacques-Louis David to Henry William Pickersgill and Charles Wilson Peale — who took it upon themselves to continue the tradition that had begun in Italy with the extraordinary *Portrait of Luca Pacioli* (attributed to Jacopo de' Barbari, not without Tosi's scepticism) and Vesalius' masterpiece.

The problem was, and still is, that science was no longer a key cultural issue in Italy. This was not for lack of first-rate mathematicians, physicists and biologists. Rather, the modern prince — the state — did not feel science was worthy of consistent patronage and support. And today, with the so-called decline of ideologies, even the last overtones of the Galileo affair and its significance for the country's history are becoming submerged in a mainstream, vociferous, post-modern chorus deprecating scientific modernity in a country that has never been allowed to become modern, let alone 'scientific'. ■

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## The human body revealed

