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The Story of Creative Engineering, Architecture, and Design

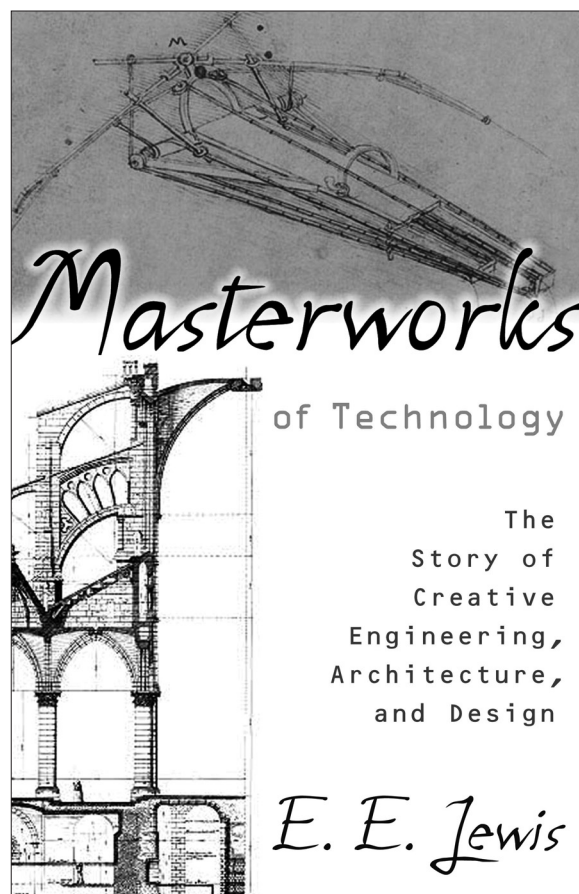
E. E. Lewis

In this absorbing exploration of technological creativity throughout the ages, E. E. Lewis, professor of mechanical engineering at Northwestern University, eloquently tells the story of how science and engineering—which had little in common until a few hundred years ago—came together to create the technological world of the 21st century.

Today's technology is the product of a fascinating synergy of science's search for comprehension of the material universe and engineering's drive to build things and make them work. In the 20th century this synergy achieved many unprecedented successes, the most spectacular of which is arguably the first moon landing of the Apollo program. "Rocket science," now symbolic of humanity's most complex technological endeavors, is the culmination of centuries of achievements by architects of pyramids and cathedrals, medieval craft guilds, and pioneering inventors and scientists from the Renaissance through the Industrial Revolution.

Melding his own personal experiences—from visiting Chartres Cathedral to flying aboard a Boeing 777—with vivid historical vignettes, the author skillfully demonstrates the importance of craft tradition, scientific method, production organization, economics, and more to the creation of modern technology. Whether Lewis is discussing the distribution of weight along flying buttresses, the challenges faced by Morse in engineering the telegraph, or the Apollo program's monumental team effort, the author's deep knowledge of and enthusiasm for his subject and his gift for engaging, lively prose make for a fascinating exploration of science and engineering through the ages.

E. E. Lewis (Evanston, IL), the former chair of the Department of Mechanical Engineering, is professor of mechanical engineering at the McCormick School of Engineering and Applied Science at Northwestern University. He is the author of three engineering textbooks and numerous journal articles.



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