From Electricity to the Nucleus

CHAPTER 19
Turning on the Lights

Explorer of nature . . . shaper of the landscape. Two strands of human nature are intricately woven along the path from electricity to the nucleus. Previously of interest only to the explorers of nature, electricity and magnetism remained a curiosity until the middle of the nineteenth century. The realization that vibrating electric and magnetic fields could provide an extraordinarily efficient means of energy transfer aroused the entrepreneur. A glance about our homes or at the network of power lines above remind us of the extent to which we have reshaped our landscape with this knowledge.

CHAPTER 20
Electromagnetism

CHAPTER 21
Radioactivity

CHAPTER 22
Nuclear Energy

Similar strands of human nature can be found in the nuclear studies that have dominated the twentieth century. Seen initially as a curiosity, the radioactive emissions released by uranium aroused only the interest of scientists. By 1950, however, the immense energy released during fission and fusion events had aroused the interests of the entrepreneur and general alike. Once again, we reshape the landscape in response to the knowledge and understanding we have gained.