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Sommario/riassunto	This book describes interesting case studies of the exploration, characterization, and use of geothermal resources in Spain, Sweden, Italy, Croatia, China, Djibouti, and Canada. A new open-source software, with an easy-to-use graphical user interface, is applied to assess the deep geothermal potential of the Reus-Valls sedimentary basin in Spain. Then, a high-temperature borehole thermal energy storage facility at Linköping, Sweden, is described to shift excess heat generated from a waste incineration plant during the summer to the winter season. Next, a plastic plate heat exchanger was geometrically and thermodynamically modeled, optimized, and applied to a direct geothermal heating system for a building in Southern Italy. In the last European study, in Croatia, an unconventional hydrocarbon gas reservoir is analyzed (geothermal gradient of 49°C/km), in the geothermal field Velika Ciglena. Going down to Africa, the assessment of the geothermal resources in the Asal Rift (Djibouti) through multiphase flow and heat transfer simulations is presented. Moving to Asia, in the Chinese province of Guangdong, magnetotelluric profiles are used to interpret the crust and upper mantle structure and its geothermal implications. Then, in the remote Canadian Northern regions, uncertainty and risk evaluation of deep geothermal energy

resources (> 4 km) for heat production and electricity generation are described. Finally, a literature review provides a comparison of geothermal projects in unconventional reservoirs in United Kingdom (Cornubian Batholith), Canada (Williston Sedimentary Basin), and Italy (Campi Flegrei Caldera).