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The Origins of Building Science in the Architecture of Renaissance England

Abstract

This paper traces the relationship between architecture and science in the design of buildings in England from the sixteenth to the eighteenth century, through a study of the connection between buildings and climate. At the end of the sixteenth century the architect Robert Smythson built a sequence of great country houses that demonstrate a precise, if essentially subjective, understanding of the English climate. Half a century later, Christopher Wren was both scientist and architect. It is proposed that Wren's science informed the environmental aspects of his buildings. In the eighteenth century architects and theoreticians of the English Palladian movement adopted Newtonian principles of codification and tabulation to bring precision to such matters as the dimensions of windows and fireplaces in designs for houses.

Keywords

Architecture; Natural Philosophy; Building Science; Climate.