

# Towards a Cartographic Renaissance: Leonardo's Maps and their Approaches to Art and Science

Alexander J. Kent<sup>a</sup>

<sup>a</sup> *Canterbury Christ Church University, UK* [alexander.kent@canterbury.ac.uk](mailto:alexander.kent@canterbury.ac.uk)

**Keywords:** Leonardo da Vinci, cartographic design, art and science dualism

## Abstract:

Leonardo da Vinci (1452–1519) is known principally for his contribution to Western art and for his technological ingenuity, as captured in his surviving notebooks. A polymath and quintessential figure of the Renaissance, his immense output and creative genius transcended the boundaries of art and science. This paper examines the unique qualities of graphical representation in Leonardo's maps. It explores their harmonization of artistic and scientific ideals in recording observation and experience, and assesses how these can inform cartographic approaches today. The map of Imola (Figure 1), for example, which he created for Cesare Borgia in 1502, presents an accurate, measured depiction of the city alongside the River Santerno as a dynamic, natural phenomenon. His map of the rivers and mountains of central Italy (c.1502–4) exhibits an early form of layer colouring, while his bird's-eye view of the Valdichiana (c.1503–6) demonstrates a detailed knowledge of landforms. Leonardo offers a view of the Earth as a living, yet measurable, organism seen through a lens unblemished by the tensions of the art-science dualism that took hold in the Enlightenment. His holistic approach to the pursuit of knowledge and understanding therefore offers a fresh perspective for mapping dynamic phenomena, which is becoming a defining characteristic of the quantum age.



Figure 1. Map of Imola by Leonardo da Vinci, created in 1502 for Cesare Borgia (size: 602 mm x 440 mm; source: Wikipedia 2021).