

Title	<i>Leonardo da Vinci, Humanism and Engineering between Florence and Milan</i>
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Abstract

The machines and mechanical elements drawn by Leonardo through the course of his itinerary as engineer and technologist belong to the most disparate fields, highlighting his curiosity about the technological culture of his times. Just as for the other sectors of his activity, the first machines depicted by Leonardo follow in the tradition of the Renaissance Florentine workshop and are characterized by a practical, empirical approach aimed at resolution of problems progressively as they arose. During his first Milanese period (1482-1499), Leonardo was experimenting with, and refining ever more effective graphical systems of representation, which he would proceed in applying also to other sectors, like anatomy, architecture, and military engineering. Sections, prospect views, and transparent views were used to decompose machines into their constituent elements, finding solutions for automating and rendering more efficient the existing traditional mechanisms, or for conceiving completely new mechanisms. Leonardo moved, particularly in the 1490s, from documentation of practical problems to a more theoretical analysis of the principles regulating the functioning of machines, from the study of mechanical elements to their inter-relation. The studies on friction and on motion in general are to be inserted into this perspective, which led him to the idea of compiling a treatise on mechanics, based on the analysis of mechanisms and gears, the so-called "elementi macchinali".

Speaker's Bio:



Claudio Giorgione graduated in History of Art at the Università degli Studi di Milano with a dissertation about the Renaissance milanese painter Bernardino Luini. He has been working at Museo Nazionale della Scienza e della Tecnologia Leonardo da Vinci since 1997, and is currently the Curator of the Leonardo Art and Science Department of the Museum. As an art historian he holds lectures and conferences. He is the author of the book "Leonardo da Vinci. The collection of models," published by the Museum in 2009, and has curated and co-edited the exhibition and catalogue "Leonard de Vinci. La nature e l'invention" displayed at the Cité des Sciences in Paris, and published by Editions de la Martiniere in 2012 during for the exhibition at the Cité des Sciences in Paris "Leonard de Vinci. Projects, dessins, machines ". He also curated the exhibition "Leonardo da Vinci, nature, art and science" in Incheon, South Korea, in 2009, and the exhibition "The Ideal City in the Renaissance" in the Pavillion of National Museum of Shanghai during the World Expo 2010 in Shanghai, China. He also wrote the essays "Leonardo e il disegno di Macchine" in the volume "Leonardo da Vinci. 1452-1519", Skira, 2015, "Leonardo, la Fabbrica e il Tiburio" in the volume "Leonardo da Vinci and the construction of the Cathedral of Milan", Silvana Editoriale, 2012 and "Leonardo da Vinci and machines: body shape and automation" for the catalogue of the exhibition "Bodies, automata and robots", held in Lugano, Switzerland, 2009.