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# MOHAI exhibit lets you test some of Leonardo da Vinci's inventions

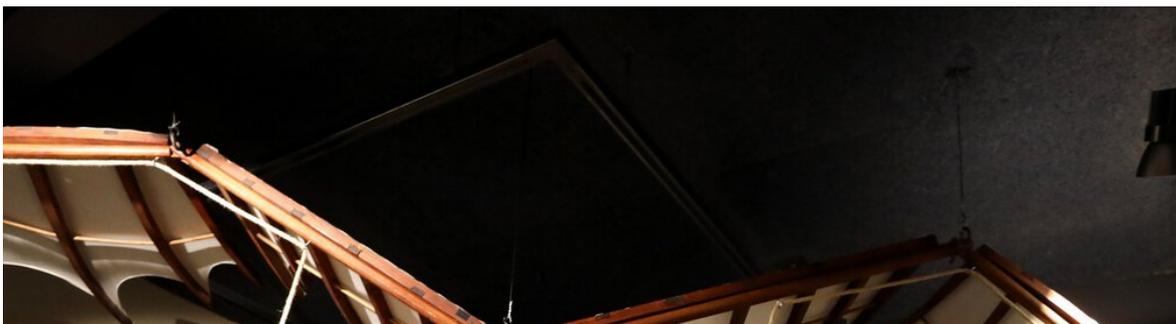
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Starting this weekend, visitors to the Museum of History & Industry will be able to do something Leonardo da Vinci never could — test some of his own inventions. Very few of Leonardo's designs were ever built in his lifetime. But now, Italian craftsmen have scoured his notes to build models that museum visitors can try out.

From July 31 to Jan. 3, MOHAI is presenting the West Coast premiere of "[Da Vinci — Inventions](#)," an exhibition created by Grande Experiences — the Australian company behind "Van Gogh Alive" — with the assistance of the Museo de Leonardo da Vinci in Rome. Perhaps most famous as an artist, Leonardo also excelled as an inventor, anatomist, engineer and architect. In 16 themed sections, this exhibition explores the breadth of Leonardo's genius, with a special focus on his inventions — from musical instruments to weapons and, of course, flying machines.





*Leonardo da Vinci was fascinated with the possibility of human flight. This model, from one of his designs of a flying machine, would flap its wings, while the pilot would lie flat in it. (Alan Berner / The Seattle Times)*

“There was much less of a division between art and science in the Renaissance,” said Amanda Thomas, the Grande Experiences representative who helped MOHAI set up the exhibition. “In those times you were just a learned person and you would learn about all sorts of things.” However, that learning was mostly hypothetical, and often rooted in theology. Leonardo was ahead of his time in grounding his knowledge on close observation of the natural world.

“He was such a keen observer and that’s not only reflected in his art. His observation of nature led him to create these imaginative devices to improve the quality of everyday life,” said Leonard Garfield, executive director of MOHAI.

After the 1484 epidemic of bubonic plague, Leonardo designed a multilayered city that would not spread disease as efficiently as medieval Italian cities did. Although his urban design was never built — except as a model for this exhibition — Leonardo was a “genius of adapting nature and scientific principles to the things that we would find useful as humans,” said Garfield.

“Da Vinci was somebody who wanted to know what was real and

literally get his hands in the guts and see what the structures actually were,” said Thomas. “The Renaissance was a time of really looking at life. Medieval art is all very flat and two-dimensional with an emphasis on the holy. Da Vinci’s illustrations could belong in a modern textbook.” Leonardo’s anatomical sketches (also reproduced for this exhibition) were informed by human dissections. Forbidden by the church at the time, Leonardo performed most of them in secret.

Leonardo’s notes often contained hidden clues, intentional mistakes and mirror-image writing. The reassembled pages of his once-scattered codices have been reproduced for display in this exhibition; visitors can also explore digitized versions of the codices in-depth using touchscreens.



*Leonardo da Vinci's notebooks are works of art in themselves. This is a reproduction on exhibit at MOHAI as part of the "Da Vinci — Inventions"*

*show starting July 31. (Alan Berner / The Seattle Times)*

Leonardo articulated conceptual bases for the helicopter, automobile and scuba gear (though, of course, it would take centuries of work by others to develop the detailed science and mechanics to actually make those things work). For this exhibition, craftsmen in Italy built wooden models of these and other more quotidian designs, like a wheelbarrow modified to function as an odometer.

“It’s all about the spirit of looking at the world around us and figuring out how can we be inspired to take it to the next step. You see the evolution of ideas in Leonardo’s work. The recognition of the connection between nature and human mechanics and technology is what we’re seeing today with biomimicry. The humanist spirit of the Renaissance has so totally shaped who we are now in this specific community,” said Garfield.

The breadth of Leonardo’s work means “this is a wonderful exhibition for artists and innovators of any age,” says Thomas. “It may inspire people to come in and sketch and get new ideas.”

The exhibition is also ideal for upper elementary and high school students who may be learning many of the same scientific principles that Leonardo explored. But small kids may struggle to resist the temptation to try playing Leonardo’s autopiano or giving the hand-cranked car a spin, which are among the displays that don’t allow handling by visitors. Fortunately, they are free to test the physics machines — a series of wooden devices that demonstrate mechanical principles like how ball bearings and pistons work — that are available for hands-on interaction.

After a year of COVID-19 protocols, it may feel strange to be

encouraged to play with items on exhibit. But Garfield says MOHAI is still taking serious precautions. Hands-on elements of the exhibition will be cleaned frequently throughout the day; visitors are asked to wear masks and maintain physical distance inside the museum; and online reservations are strongly encouraged to minimize crowding.

During the summer, there will be outdoor all-ages weekend programs to make sketchbooks and explore hydraulics. For those who prefer to learn about Leonardo remotely, online speaking events are scheduled in September.

### **‘Da Vinci — Inventions’**

July 31-Jan. 3; Museum of History & Industry, 860 Terry Ave. N., Seattle; \$22, free for ages 14 and under; 206-324-1126, [mohai.org](https://mohai.org)

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