

## Renaissance's dream machines

**Web Posted: 06/26/2008**

**Eva Ruth Moravec**

**Express-News**

About 1,500 people visited the Witte Museum on Saturday, the opening day of the exhibit “The Genius of Leonardo: Machines in Motion,” in which 40 full-scale machines that replicate Leonardo da Vinci's inventions are on display.

Well known for his artistic masterpieces the “Mona Lisa” and “The Last Supper,” da Vinci also filled pages of his famous sketchbooks with ideas for machines, many of which he would never see materialize.

The Witte Museum is the exhibit's first stop in America.

San Antonio-based Evergreen Exhibitions, which purchased the exhibit from Italy, knew the Witte was interested in a da Vinci exhibit and made an offer the museum couldn't refuse.

“We have a relationship with Evergreen Exhibitions, and we were able to get in right at the beginning of it,” said museum spokeswoman Shannon Standley. “We were looking for one, and we were really happy we got this one.”

On opening day, museum-goers of all ages gaped at life-sized, working inventions made of wood, glue and rope. The inventions were categorized by their elements into four groups: air, water, fire and earth.

Wall-mounted screens throughout the exhibit featured messages from a young virtual-reality tour guide, who led visitors past flying machines, a printing press, inventions for warfare and machines that use water to relay energy.

In “Leonardo's Workshop,” visitors were able to build a self-supporting bridge, test out a model submarine, sample a small catapult and draw with a perspectograph. Throughout the exhibit, adults and children alike can operate about 30 inventions.

“I'm flabbergasted,” said Jack Walraven, 81, who was visiting from Dallas. “I've seen his inventions in books, but you always wonder how it works, and this here explains it. I'm fascinated the same way the kids are.”

Children flocked to the hydraulic saw, where they turned gears to slice a log; and to a massive armored tank, which visitors could enter.



“The tank is really cool to look at,” said 7-year-old Maggie Willfong.

“I’m just amazed that all of this was thought up hundreds of years ago, and much of it we still use today,” said Maggie’s mother, Charlene Willfong, who came from Seguin to see the exhibit.

Inventions in the fire category reminded adults how ahead of his time da Vinci’s sketches were - during his life in the 15th century, the ultimate “Renaissance man” envisioned a catapult, machine gun and mortar gun. Ball bearings, which are also drawn in da Vinci’s sketchbooks, are still used today in automobiles.

While many of his ideas did eventually become working machines, he never solved the one question that perplexed him the most: how to make a man fly. Da Vinci died in 1519, centuries before the Wright brothers’ first fixed-wing flight, in 1903.

Lining the ceiling of “The Genius of Leonardo” are several flying machines that curators admit are too heavy to ever fly, including a parachute, theater bird, mechanical wings and bicycle with mechanical wings.

“The flying machines are pretty cool, but they would never work,” said Juan Carlos Pascual, 9, in town from Florida with his father to visit family.

“I’ve always loved Leonardo da Vinci, and I have very creative kids. We’ve seen his art in Europe, but it’s never been this hands-on,” said Juan Carlos’ father, Jose Pascual, an engineer.

The interactive exhibit, which has already been viewed by audiences in Turkey and Mexico City, will be on display at the Witte Museum through Sept. 7. Tickets are \$3 plus regular museum admission..