Leonardo da Vinci: a style for teaching and learning, a style for big research

By Francesco Carelli

Professor Family Medicine, Milan, Rome

“The World of Leonardo” Exhibition is one of the most important cultural events in Milan for 2013.

In the heart of the town, Piazza della Scala (Scala Theater Square), the site of Leonardo’s statue, at the entrance to the “Galleria”, in the prestigious location of the King's Rooms, we can discover Leonardo da Vinci, the worldwide known artist and inventor, by many displayed working models of his machines and by a number of digital restorations of his paintings, and by more than 200 3D interactive reconstructions, as never before seen. In addition to his artistic works, also the Codices of Leonardo in virtual format are displayed in multimedia stations allowing hands-on interaction. It is so possible to learn by observing and doing (somewhat like it happens usually in general medicine teaching and learning): you can paint the Last Supper, create a wooden bridge, make a device supporting a man flying and so on.

Visitors can read page by page the Leonardo’s handwritten documents as Atlantic Codex, Document B, Codex about Flying, and easily understand them. They can also interact with the Clavi-Viola, the Mechanic Lion, the Robot-Car, the Robot-Man, the tank, the multiple bombard cannon, the Submarine, the Time Machine, the magic cube, using Leonardo’s inventions as never before.

For the first time in the world it is possible to see the “Flying Machine of Milan”, the project for the highest tower in Europe and the one for the biggest equestrian monuments in the world (the Sforza Monument, which horse was realized in metal in the last
century by an American millionaire and sent to Milan, where is now exposed at the entrance of the hippodrome).

There is also a specific place for youngest visitors: Leonardo's Laboratory, where children can learn how to assemble leonardian machines, print their own certificate as inventors, and physically make a self-sustaining bridge assembling wooden pieces. The important digital restoration of “The Last Supper” allows to discover details and colours up to now supposed to be lost for ever.

According to the eclectic and always active Leonardo's nature, this really eclectic exhibition is open all day everyday (no holidays) and continues to develop with new added reconstructions of his inventions and new interactive stations, and increasing numbers of audio-guides (now in Italian, English, French, German, and also Russian and Chinese).

As above mentioned, the teaching-learning style is a key point, and hundreds and hundreds of groups from schools are visiting and booking for.

In a recently added section, we can see the Manuscript of Wonders, with more than 150 3dimensional and interactive models revealing even machines never seen before. For instance, “The Time Machine” is born of this Manuscript, presenting one of Leonardo's most futuristic and surprising devices. Folders 33v and 34r, always described as “mechanic drawings”, hide the project for a “moto perpetuo” (endless motion) machine, able in theory to give unlimited energy to Leonardo's “Ideal Town”. This mechanism (a system of programmed boxes that, using energy coming from an inverted mill and mercury as propelling force) could have the same significance as the search for the philosopher's stone for wizards.

In Milan, Leonardo the genius was frenetically busy, working as a painter, a sculptor, an engineer, an architect, a designer, and playing many other roles, but his top project, the dream of all his life, greater than the Sforza Equestrian Monument, emotionally more moving than any painting or artistic work, was human flight. He studied and worked on it in secret, waiting for the right moment to show its realization to the public. The drawings and projects about flying were secret, well hidden: no one had to see them, because Leonardo wanted to keep his primacy.

On Folder 749 of the Atlantic Codex we can see the advanced project for “the secret flying machine from Milan”. We can imagine Leonardo in his secret room, near the Duomo (Cathedral), in the evening, at candlelight, after a long day spent in many duties, after some painting at Last Supper, but always thinking at his most important project, his dream. This was the cause of Leonardo's concern, making him appear so strange to the others, not knowing his mind nor his secret work.

The model of the flying machine, prepared by Leonardo near the place where centuries later Royal Palace was built, is now reproduced in its original size – 8 meters wings opening - at the center of the exhibition, and is one of the most recent innovative addition to it.

Published on Synapse, 11th September 2013