



Leonardo3 – Il Mondo di Leonardo

Sale del Re, Piazza della Scala
Galleria Vittorio Emanuele II entrance
Ends July 31, 2013 - Daily, 10am-11pm

Leonardo3 The World of Leonardo

An exhibit featuring brand-new discoveries
and interactive experiences

Milan, April 17, 2013. *Leonardo3 – Il Mondo di Leonardo*, an exhibit now open inside Milan's prestigious Sale del Re in Piazza della Scala (entrance from the Galleria), has already sold over 40,000 tickets in its first 40 days.

This is the most important interactive and interdisciplinary exhibit ever dedicated to artist and inventor Leonardo da Vinci and his ingenious machines. The show has been awarded a state prize by the President of Italy and is supported by the Municipality of Milan.

THE EXHIBIT: PURPOSE AND PREMISE

Countless exhibitions have been dedicated to Leonardo over the last ten years. While the artworks of this Renaissance genius have been the object of much attention, study and popularization, the same cannot be said for his manuscripts, which are decidedly more difficult to understand and appreciate. Leonardo left behind some 120 notebooks, many of which have been lost. Yet we still have around 5 thousand pages, most of which contain drawings that remain to be interpreted.

This show presents the results of **research carried out over the last ten years by Mario Taddei and Edoardo Zanon**. Its purpose is to highlight Leonardo's work not just as "artist" but also as "engineer" and help us understand what he wrote, what he designed, the studies he made for his machines, and how he worked.

Considering Leonardo's importance as an artist, however, the exhibit would be remiss not to also include several of his artistic drawings, including those he made in preparation for his fresco of the *Last Supper* and his never-completed *Equestrian Monument to Francesco Sforza*.





L3 HyperView

CONTENTS AND NEW DISCOVERIES

Because of its surface area (nearly 500 sq. m. or 1640 sq. ft.), contents (the results of brand-new research) and length (5 months) this show represents an important opportunity for families, students, tourists and others to discover something new about Leonardo da Vinci in an original way.

More than **200 interactive 3D machines are on display, in addition to physical reproductions of Leonardo's machines, many of which he never even built and are seen here for the first time ever.** These machines were created with the utmost respect to the original designs found among the thousands of pages, notes and drawings contained within the most important of Leonardo's manuscripts to come down to us: *Manuscript B*, the *Codex on Flight* and the *Codex Atlanticus*. Intensive study of these notebooks has led to the recreation of evocative machines, all on exhibit here: the *Harpichord-Viola*, the *Mechanical Lion*, the *Robot-Car*, the *Robot-Knight* and the *Multi-Cannon Gunship*, among many others. Brand-new discoveries include machines reconstructed for the first time ever like the *Mechanical Submarine*, the *Time Machine*, the *Flying Machine of Milan*, the *Magic Cube* and the *Mechanical Dragonfly*.

The entire show is characterized by interactive 3D experiences for the public, including for the first time a complete edition of the *Codex Atlanticus* with more than 1100 folios that visitors can consult digitally. *Leonardo in Milan* guides the viewer through the firsthand experiences of building the *Flying Machine of Milan*, constructing the highest tower in the world planned for Sforza Castle and painting the *Last Supper*. Another station is devoted to the *Giant Horse*, also known as the *Monument to Francesco Sforza*, revealing what the monument could have looked like if Leonardo had ever completed it. The interactive experiences are all in English and Italian, to make the contents available to an international audience. A complete audio guide is also available in English.

Visitors can leaf through and easily understand the fascinating contents of Leonardo's folios; they can use his inventions in ways never before possible by experiencing them interactively. Some are meant expressly for kids, like *Leonardo's Workshop*, which invites young people to digitally assemble Leonardo's machines and print their own inventor's certificate as well as physically assemble Leonardo's *Self-Supporting Bridge*.

As for Leonardo's art, the important digital restoration of the *Last Supper* allows visitors for the first time since the Renaissance to rediscover details and colors of the celebrated wall painting that have been lost forever.

The contents of this exhibit are rich and center on "edutainment"



Time Machine virtual model



L3 interactive station

experiences for young and old alike.

Statement from the curators

Massimiliano Lisa, President of Leonardo3 and one of the show's three curators, says:

“This exhibition is truly unlike any other because it presents the results of original research that has led to completely new reconstructions. We are therefore giving the public an amazing opportunity to discover Leonardo as they’ve never seen him before. We want to help people understand this great genius. This is also why our interactive experiences allow visitors to “play” with Leonardo’s machines and works of art. We call this “edutainment.” Through play, people can get to know Leonardo better and learn that simple concepts actually lie behind apparent complexities. We don’t have the sterile objective of celebrating some unapproachable genius. We want to make him more accessible, in the process provoking, yes, wonder, but also knowledge that leads to understanding and inspiration. We invite visitors to turn off all the distractions around them and turn on their minds. We hope that among the thousands of visitors there might be some future Leonardo’s who will use this show as stimulus and inspiration to start studying, trying to improve their surroundings, and creating.

Leonardo studied a lot and many of his inventions were revisions and improvements on things that came before him. The same is true today. We can use our knowledge of the past to take small steps forwards by improving and refashioning the world around us.

The secret to Leonardo’s success was his great curiosity; it was his desire to continue innovating and experimenting without fear of failure. And he racked up a lot of failures—so many of his machines were flops. Just think of all his flying machines that never managed to fly, or the Harpsichord-Viola, a truly innovative musical instrument that actually works, but has a noisy motor. Or the wall paintings he made using experimental techniques that didn’t work: the *Battle of Anghiari*, which was destroyed before ever being finished; and the *Last Supper*, which may have survived but only as faded image of what Leonardo actually completed.

Leonardo’s great failure was not publishing anything. None of his notebooks ever saw the light, if not perhaps his treatise on painting, which his student Melzi published after his death. If Leonardo had published his studies on flight, humans may have taken flight earlier than they did. On one of his pages Leonardo even sketched the wing profile and lift whose equation was postulated by **Bernoulli 250 years later.** Leonardo’s greatest gift, i.e. the fact that he always had hundreds of designs on his mind, is also what led him to finish so few.



Mechanical Submarine virtual model



Physical model of the Mechanical Dragonfly

Mario Taddei, Scientific Co-Director of Leonardo3 and one of the show's three curators, says:

“Everyone thinks they already know Leonardo da Vinci. Some have even called him an oddball. Some have said he was a homosexual, as though they knew him and this was something fundamental about him. Vegetarians say Leonardo was a vegetarian. So goes the Renaissance gossip mill. When it comes to more concrete things, Leonardo is also universally known as the inventor of the helicopter, the armored car, the scythed chariot, the parachute and the bicycle. Nothing could be further from the truth. The armored car, the scythed chariot, the parachute, bombs and catapults were all medieval weapons and inventions that Leonardo studied and recopied in his own notebooks. The bicycle is also one of the stupidest things ever reconstructed! Sometimes you just need some simple reasoning. Leonardo’s “famous” Archimedes screw? That belonged to Archimedes, not Leonardo. Ever wonder why one of Leonardo’s most well-known drawings, which we even have pictured on our Euro, is called the *Vetruvian Man*? Maybe because it was by *Vetruvius*? Leonardo left us with some 5000 manuscript pages, and even more have been lost. This is where we can (re) discover the Real Leonardo.

After hard and extensive research I’m proud to present Leonardo’s real manuscripts in this exhibition so the public has the chance to observe and understand them with their own eyes using new interactive multimedia technology, which has finally made them easily accessible. Our display of new discoveries like the *Time Machine*, the *Mechanical Submarine*, the *Magic Cube*, the restoration of the *Last Supper* and dozens of other unprecedented models are just the tip of the iceberg. It is essential that we understand these machines and whether they were really inventions of Leonardo’s. To do so, the dozens of multimedia stations in this show are indispensable since they allow us to discover the machines, disassemble and reassemble them, and view the research documents. It doesn’t matter if you’re 6 or 86. What matters is your desire to observe, learn and innovate, just like the real Leonardo da Vinci did.”

Edoardo Zanon, Scientific Co-Director of Leonardo3 and one of the show's three curators, says:

“**There is one category of objects that is inseparable from the figure of Leonardo: the flying machines.** Leonardo’s gaze was always directed towards those mythical flying creatures, birds and insects. Leonardo approached these elements in the sky the same way he approached machines. For Leonardo, human flight was the desire of a lifetime. He was involved with flight from an early age because of a dream he later described, and he was swept away by the subject his entire life, always looking for the definitive solution that would finally allow him to achieve his dream. **Leonardo’s**



The Last Supper restoration



Pilot of the Great Kite

flying machines are magic because they conceal the thirst for knowledge of a man who never gave up. We have several flying machines on exhibit: *The Great Kite*, hidden inside the *Codex on Flight*, for which Leonardo even left piloting instructions; the *Flying Machine of Milan*, which was to be built in secret behind the Tower of San Gottardo; the *Aerial Screw*, which is not a helicopter; and the *Mechanical Bat* and the *Mechanical Dragonfly*, both drawn in imitation of animals. We now know that if Leonardo had ever tested one of his flying machines it would have been impossible to hide it from the world since, as he said himself, he would have celebrated it with the utmost splendor “bringing glory to the nest where it was born.” But this doesn’t matter because expecting a test flight from Leonardo would be like asking for an “object outside time”—non-designable and therefore impossible. No one can create such an object.

But Leonardo sure tried. And as someone involved in this kind of research, **I am firmly convinced that he did build at least one, in great secret, like the one in Milan.**

THE SALE DEL RE

On March 7, 1865 King Victor Emmanuel II laid the first stone for the construction of the Galleria in Milan. The king planned prestigious rooms for the Galleria to host private and public meetings, parties and lavish balls.

Now, following careful restoration, the rooms have finally reopened their doors to host events. From the entrance to the Galleria in Piazza della Scala, private elevators lead directly to the ticket office and the Sale, which face the interior. This is the first time the Sale del Re (or “rooms of the king”) are hosting an event like this. The entrance to the Galleria is the perfect place in Milan for a show on the Renaissance maestro, since it faces a monument to Leonardo da Vinci in Piazza della Scala.



The Ideal City

Leonardo3 (L3) is an innovative research center, publishing house and media company whose mission it is to study and interpret the work of Leonardo da Vinci and make it available to the public using avant-garde methods and technology. Its exhibitions, which are created with scientific-artistic rigor, are absolutely unprecedented and aim to help visitors discover and understand Leonardo da Vinci by using accessible language addressed to the public at large.

During the exhibitions it has been organizing since 2005, the work and success of Leonardo3 has been widely recognized in the international press, including the *New York Times* (“This show helps you understand the mind of Leonardo”) and the *Philadelphia Inquirer* (“Leonardo da Vinci never built the majority of these wonders. Yet five centuries later, a group of Italian scientists has

A view of the exhibition



managed to do it.”) On September 3, 2007 the Italian *Corriere della Sera* dedicated an entire page to Leonardo3. Carlo Pedretti, the most important living Leonardo scholar, wrote: “Everyone is enthusiastic about being able to interact with the subject, which is very rigorous work. The computer is an indispensable tool. Leonardo3 must have the courage to continue. The city where Leonardo lived from 1482 to 1500 needs a systematic, permanent project on this artist and scientist.”

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The Sale del Re

Piazza della Scala – Galleria Vittorio Emanuele II entrance

March 1 – July 31, 2013

Daily, 10am-11pm

Awarded a State Prize by the President of the Italian Republic

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Tickets €12 (full price), €11 (students and reduced price), €10 (groups), €9 (children), €6 (school groups)

Ticket office TicketOne www.ticketone.it/mostraleonardo

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Reservations for guided tours; groups, schools and single visitors

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Time Machine physical model