



The Leonardo



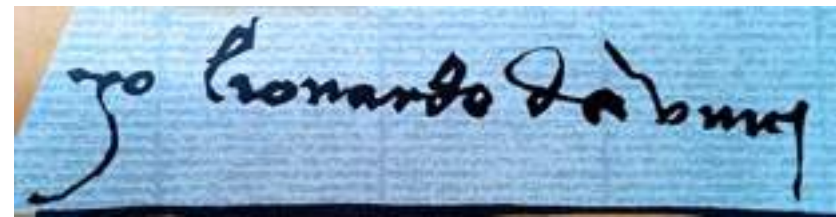
# Leonardo da Vinci - The Man, The History, The Lessons

Joe Andrade

University of Utah and The Leonardo

April 19, 2014

The Leonardo





## Why THE Leonardo?

1986 - a Science Center for Utah?

1992 - Hansen Planetarium and Dr. Stephen Hawking

1993 - Utah Legislature action - Utah Science/Arts Center

TheLeonardo name and concept suggested by Robert Olpin via inspiration of *Art and Physics*, Leonard Shlain, 1991.

1994 - Utah Legislature and SL County \$\$ and planning/design study

1995 - Gateway Center concept; Hawking second visit and lecture

1996 - Leonardo on Wheels traveling science program

2001 - SLC commits space in old City Library; Legislature re-empowers project.

2002 - TheLeonardo at Library Square name adopted.

2003 - SLC voters approve \$10M bond for TheLeonardo building remodel

2008 - The Leonardo hosts Body Worlds

2011 - The Leonardo opens! (after 25 years of dreams, plans, persistence)

BOB OLPIN / CONCEPT DODDLES - 1. 10/7/93 / THE LEONARDO -- AN ART/SCIENCES CENTER!  
UNION/TRANS → A TRIP. (NOT A MUSEUM).  
NOT A TREASURE HOUSE (EXCEPT TO EFFECTIVELY STORE STATE COLLECTION).  
AN IDEA CENTER / A LEARNING OR EDUCATION CENTER.  
DEPOT: depositum (a deposit); a station (transportation); a station where RECRUITS are assembled and trained.





ehLeonardo



## So Why Leonardo da Vinci?

Artist, Inventor, Engineer, Scientist, Architect, Musician, Anatomist

Creativity, Genius, Inspiration - Icon

Lived and worked 500 years ago

Renaissance Man; lived by experience and questioning

Didn't finish projects, unfocused, ADD?

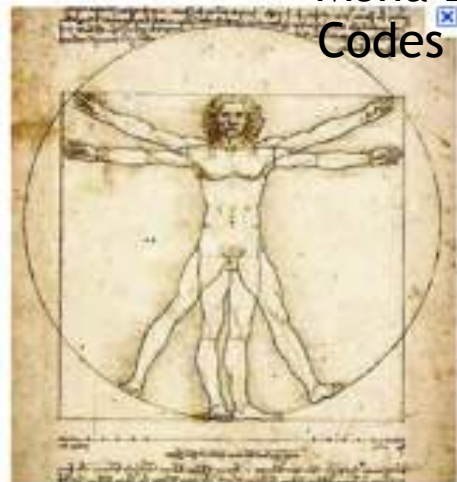
Left-handed; mirror writing. Why?

Self-educated; initially 'illiterate'; didn't trust books

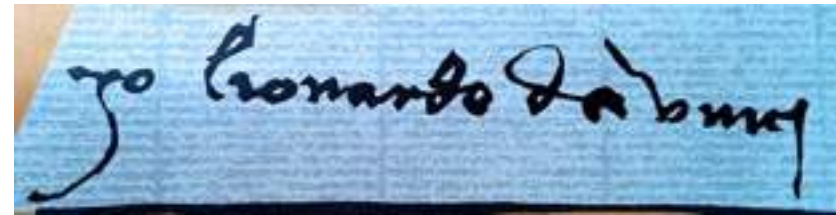
No publications; few paintings; 7,000 sheets of drawings

Mona Lisa, Flying Machines - insatiably curious

Codes and Mysteries...



The Leonardo:  
curiosity, imagination,  
inspiration, action





Sources - hundreds of books and sites:

[www.leonardo3.net](http://www.leonardo3.net)

[www.universalleonardo.org](http://www.universalleonardo.org)

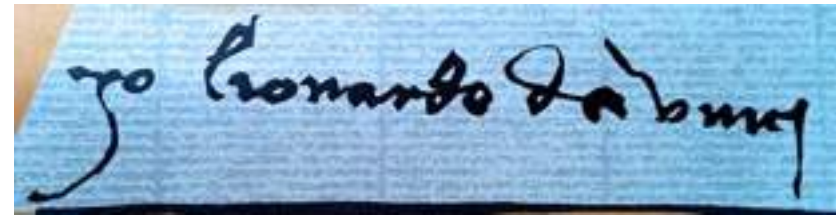


Martin Kemp  
Leonardo  
2004



Charles Nicholl  
Leonardo da Vinci:  
Flights of the Mind  
2004

and, in Oct. 2014 -  
Leonardo's Brain  
by Leonard Shlain





[www.leonardo3.net](http://www.leonardo3.net)  
books, kits, posters,  
exhibitions



# History - the last 11 Centuries

Greeks, Chinese, ancient stuff

11<sup>th</sup> C -1000s - Denmark, Norway, England, France; Hildegard

12<sup>th</sup> C -1100s - Crusades, Marco Polo

13<sup>th</sup> C -1200s - Magna Carta; Roger Bacon, Marco Polo

14<sup>th</sup> C-1300s - Plague, England; fighting;

15<sup>th</sup> C-1400s - da Vinci, Columbus, Copernicus (b. 1473)

16<sup>th</sup> C-1500s - Renaissance, Science, Art, Geography, New World, da Vinci, Magellan, Galileo (b. 1564), Paracelsus

17<sup>th</sup> C-1600s - Colonialism, 13 Colonies, Newton (b. 1642), F Bacon

18<sup>th</sup> C-1700s - Colonialism, Resources, Slavery, Labor

19<sup>th</sup> C-1800s - Coal, Steam Engine, Electricity, Photography, Industrial Revolution, Civil War

20<sup>th</sup> C-1900s - Manufacturing, Autos, Airplanes, Industry, WWI, WW2, Vietnam War, Ozone, Greenhouse Gases

21<sup>st</sup> C- to 2014 and beyond - Anthropocene, The Leonardo, Planetary Changes, Sustainability?



# Leonardo's 'World'





# Vinci, about 20 miles West of Florence; near Leonardo's birthplace



Born  
Caterina and Piero da Vinci  
No formal schooling  
Walk, run in fields, nature  
Sketch, draw  
Uncle, grandfather  
Farm, work, experiment, do...







## From Vinci to Florence



Apprenticeship with Verrocchio from about  
17 to 25 years of age  
Begins to 'solo' and become independent  
No record of drawings or paintings before  
his Florence years.

Begins keeping Notebooks at about age 30,  
when he moves to Milan







### 1470-1475 Annunciation

38,5 x 85,4 in (98 x 217 cm) – oil and tempera on wood - Uffizi Gallery, Florence

The painting is the work of Leonardo and other artists in Verrocchio's studio. The quality and details vary. Some of the building cannot be attributed to Leonardo's brushwork, but it was certainly Leonardo who painted the details of the port and outlined the ships. Many people have commented on the Virgin's strange posture: her right arm is anatomically incorrect, it is longer and bent unnaturally in order to reach the angel with the book. The landscape in the center of the picture shows evidence of several layers of paint being used to give an impression of depth; this technique is typical of Leonardo.



0% 100%

Vinci, 1452

1460

1470

1480

1490

1500

1510

Amboise, 1519

Leonardo's first solo painting - about 1474 -  
real wings, real trees, real flowers!





### 1474 - 1476 Portrait of Ginevra de' Benci

15,2 x 14,4 in (38,8 x 36,7cm) - tempera and oils on wood - front and back - National Gallery of Art, Washington

This portrait in tempera and oils was painted on a panel between 1474 and 1476. It is housed in the National Gallery in Washington. The bottom of the panel may have been cut off, resulting in the loss of the lower part of the sitter's body. It was painted for Ginevra's marriage to Luigi di Bernardo di Lapo Niccolini. The marble clarity of her face is in strong contrast to the dark juniper bush in the background. Leonardo used his fingers to shade the coloring of the face, so he left his fingerprints on the panel.

The back of the panel is also painted. The words on the banner are: "VIRTUTEM FORMA DECORAT"



Leonardo's  
second solo  
painting -  
20-25 years of  
age  
About 1475





# Mona Lisa - one of Leo's last paintings (but began in 1503)

[http://www.leonardo3.net/leonardo/paintings\\_eng.htm](http://www.leonardo3.net/leonardo/paintings_eng.htm)

## 1503 - 1514 Mona Lisa – La Gioconda

30,3 x 20,9 in (77 x 53 cm) – oil on poplar wood - Musée du Louvre, Paris

The Mona Lisa shows a woman with a thoughtful expression and a slightly smiling mouth. The painting, in oils on poplar wood, measures 30,3 x 20,9 in (77 x 53 cm). It was executed between 1503 and 1506. It is the principal attraction of the Louvre in Paris. The woman is probably Mona Lisa Gherardini, a courtesan from a country family of minor nobility, who lived around the end of the 15th/beginning of the 16th century.

"La Gioconda" is another matter entirely. It is not the painting by Leonardo da Vinci, but something dreamt up by the Press. "La Gioconda" – "the playful woman" – is the symbol of the Louvre, so greatly venerated and sought after that no one really looks closely at the painting. Much has been said about the smile and the unlikely mysteries it is supposed to hide, but these are nothing to do with this superb portrait of a lady.







Leda and the Swan - an even later work, lost  
- original sketches and many copies by others;  
Leo's finished original probably lost in a fire.



Version by  
Melzi,  
Leo's student

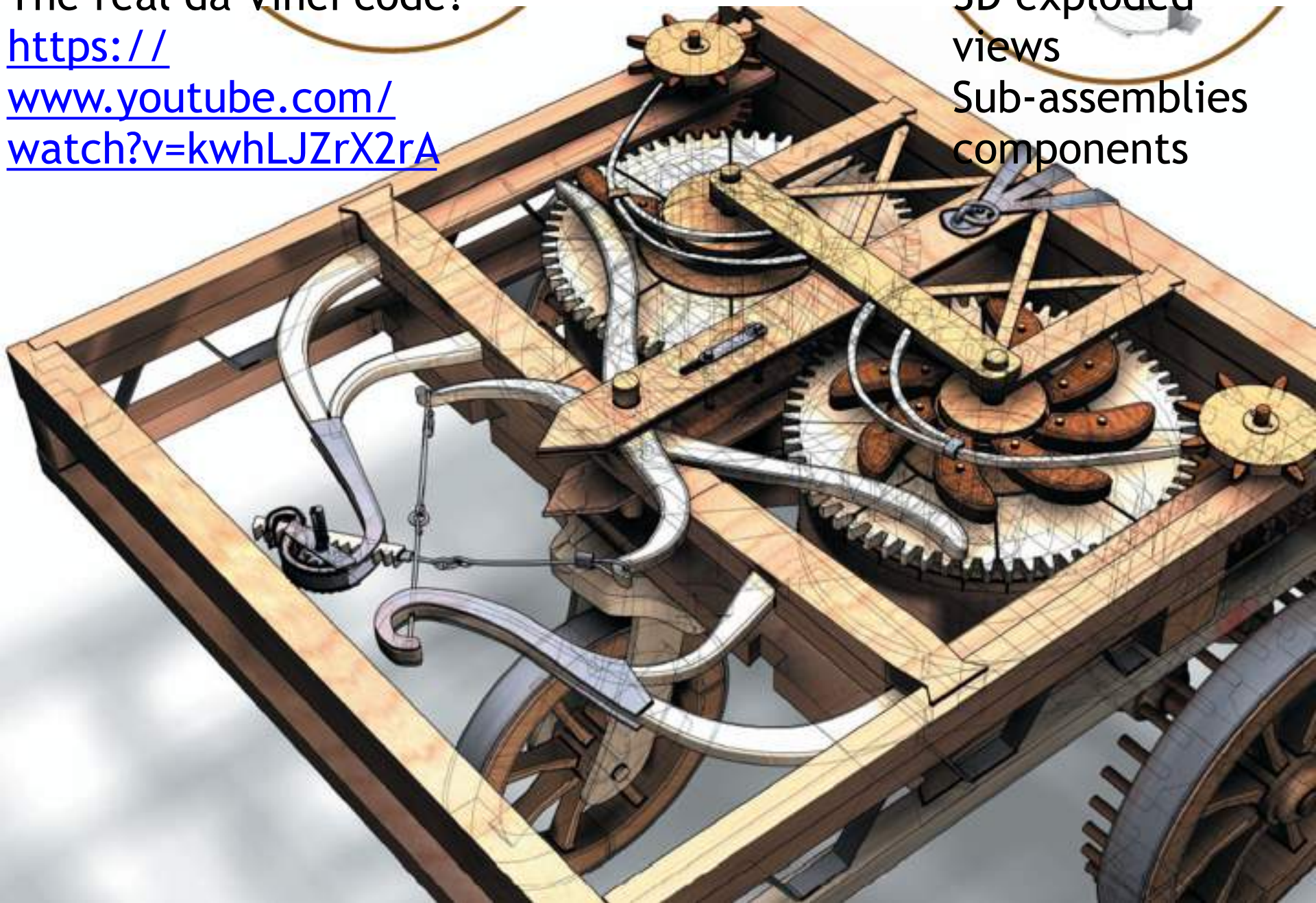




The real da Vinci code!

[https://  
www.youtube.com/  
watch?v=kwhLJZrX2rA](https://www.youtube.com/watch?v=kwhLJZrX2rA)

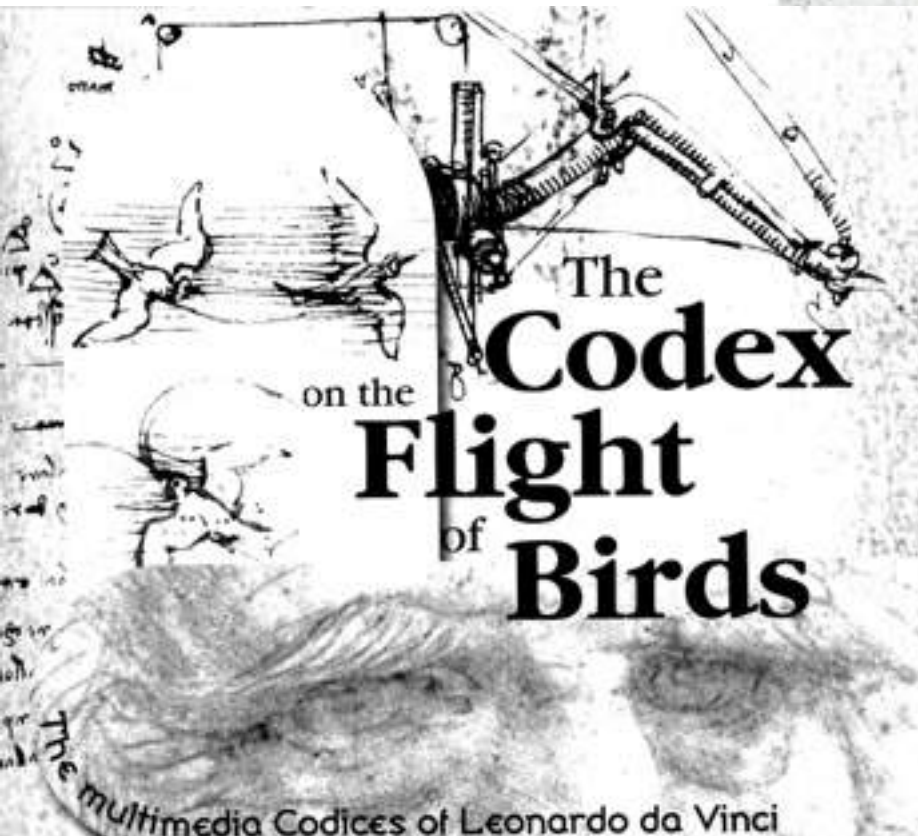
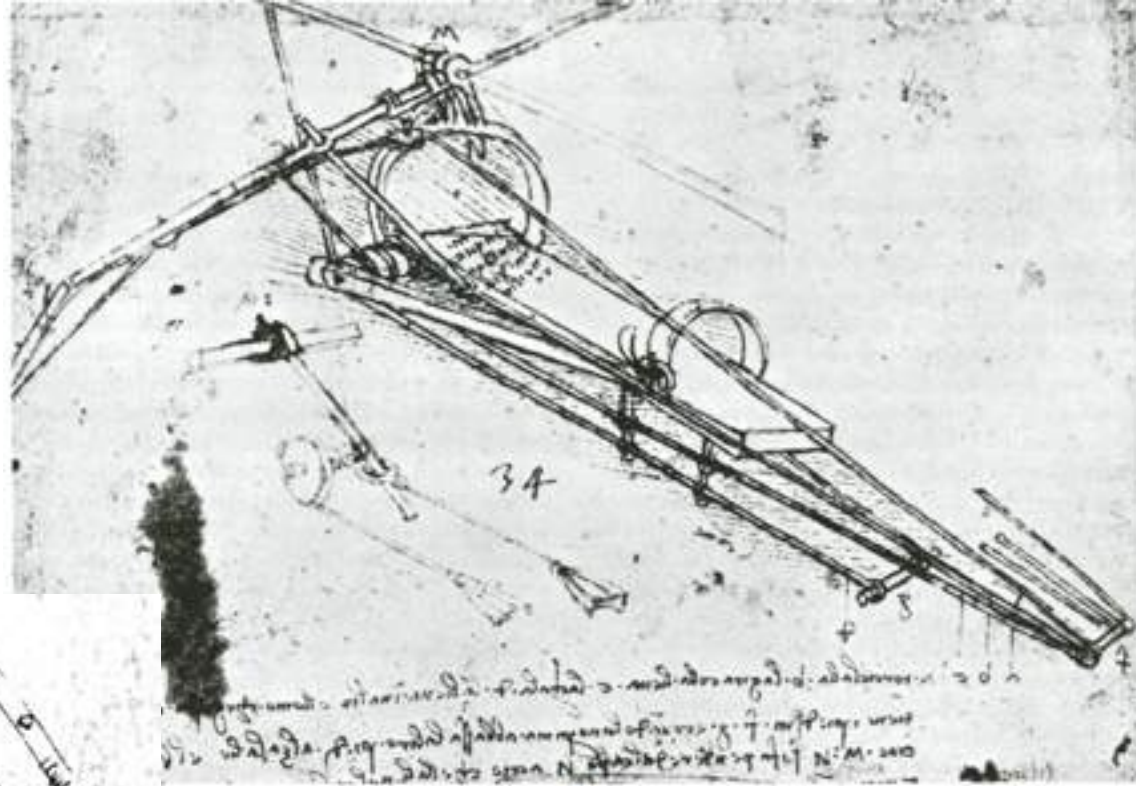
3D exploded  
views  
Sub-assemblies  
components





# Leonardo did fly!

(mentally)



*Once you have tasted flight you will  
walk the Earth with your eyes toward  
the sky.  
For there you have been and there you  
long to return.*





# Satellite or a Flight of the Imagination? Maps - and Models in Amboise







Clos Luce, Amboise,  
now a Museum and Park  
- where Leonardo lived  
his last few years.





# To see Mona Lisa: The Louve, Paris







### 1494-1498 The Last Supper

181,1 x 346,4 in (460 x 880 cm) - mural painting with tempera and oils - Santa Maria delle Grazie, Milan

The Last Supper (also known as The Cenacle) is painted in tempera and oils on two preparatory chalk layers over plaster. The painting measures 181,1 x 346,4 in (460 x 880 cm) and was executed between 1494 and 1497. In his letter of 8 February 1498 dedicating his treatise "De divina proportionem" to Ludovico the Moor, Luca Pacioli refers to it as already finished. The Cenacle is the greatest of Leonardo's paintings and the only one of his frescoes to have survived. It depicts the scene of the Eucharist at the moment when Christ says, "One of you shall betray me". Judas feels he is being accused. St. James the Great is stunned and throws his arms wide; beside him, St. Philip clutches his hands to his breast. St. Peter leans forward impulsively, while in front of him, Judas steps back, looking guilty. At the far right of the table, from left to right, St. Matthew, St. Thaddeus and St. Simon's agitated gestures express their bewilderment and incredulity. In the center, Christ is portrayed with his arms open on the table. The scene takes place in a virtual area that extends the walls of the supper room. The added virtual light coming from the left corresponds to the real light in the room, which in fact has windows in the left-hand wall.



0% 100%

Vinci, 1452

1460

1470

1480

1490

1500

1510

Amboise, 1519



## 1483 -1486 The Virgin of the Rocks - Paris

74,6 x 47,2 in (189,5 x 120 cm) – oil on wood - Musée du Louvre, Paris

This painting, in oils on a wooden panel 74,6 x 47,2 in (189,5 x 120 cm), was executed between 1495 and 1508. It is conserved inside the Louvre in Paris. The de Predis brothers commissioned it from Leonardo on 25 April 1483. There are two versions of this picture; the other one is in London.

Differences between this painting and the one in the National Gallery, London:

- in this picture the angel (without wings but with a red cloak) is pointing at the Infant Saint John
- Saint John does not have a cross
- the angel is looking at the Child beside him, while in the other version he is gazing outside the picture
- the Virgin, Child and Saint John have no haloes; in the London painting the haloes are present.
- the colors in this painting are darker than those Leonardo used in the later version







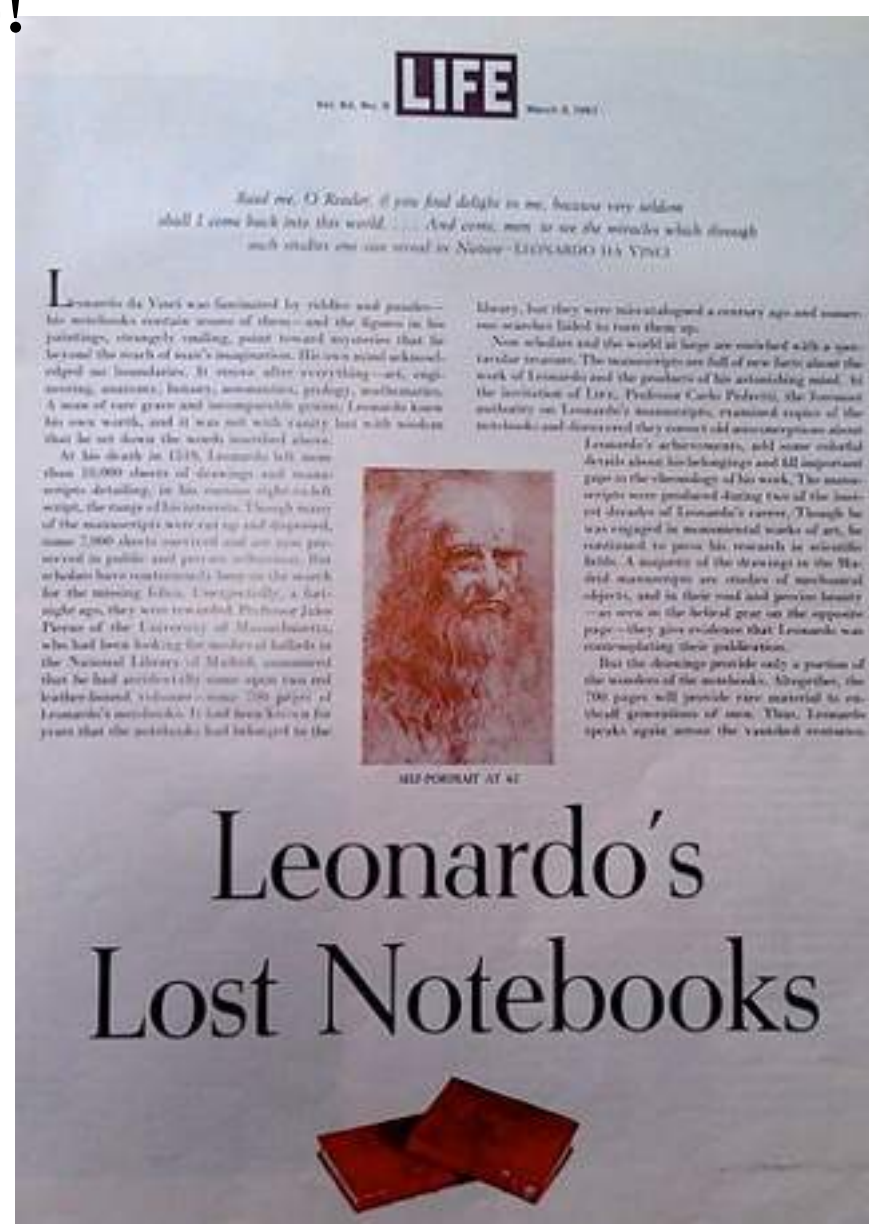
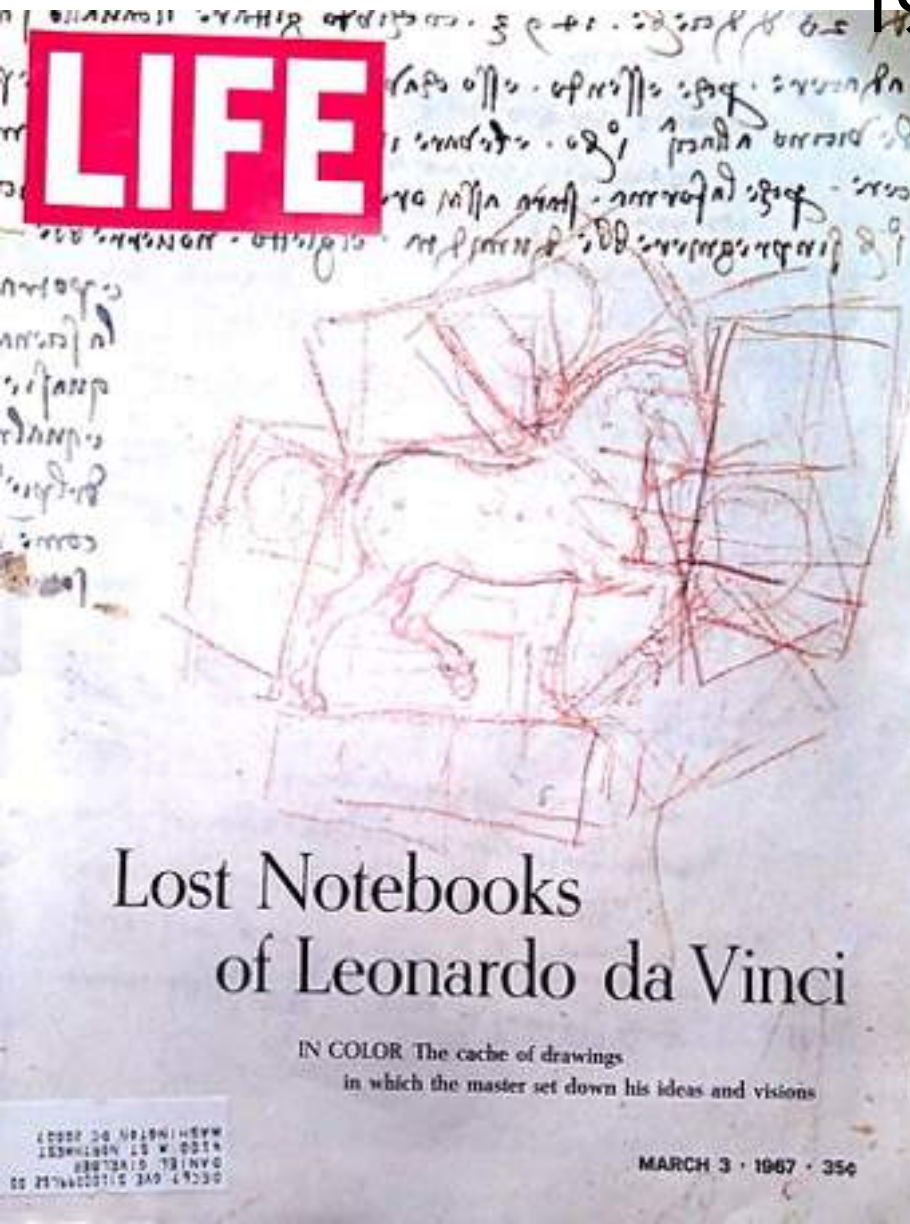
Last Supper    Ultima Cena:

[http://www.leonardo3.net/  
LastSupper-info/  
studies\\_last\\_supper\\_leonardo\\_da\\_vin  
ci.html](http://www.leonardo3.net/LastSupper-info/studies_last_supper_leonardo_da_vinci.html)

Lost Leonardos? Yes!

Madrid Codex -

lost then found in a dusty library storeroom! - in 1964!





# The Newest Leonardo! la bella Principessa

National  
Geographic  
Feb. 2012  
Lady with a Secret?

[http://  
video.pbs.org/  
video/2189483449/](http://video.pbs.org/video/2189483449/)



See a real Leonardo in the USA:

National Gallery  
Washington, DC





Leonardo's  
second solo  
painting -  
20-25 years of  
age  
About 1475



# Leonardo's Words:

From Dante: *He who ... burns his life to waste leaves no more vestige of himself ... than wind-blown smoke, or foam upon the water.*

From Paracelsus: *He who wishes to explore Nature must tread her books with his feet.*

*Saper Vedere*—knowing how to see.

*I am not to be accused of idleness.*

*Ostinato rigore* - persistent rigor.

*Intellectual passion drives out sensuality.*

*I never tire of being useful.*

*Learning without a liking for it stills the mind and retains nothing that it takes in*

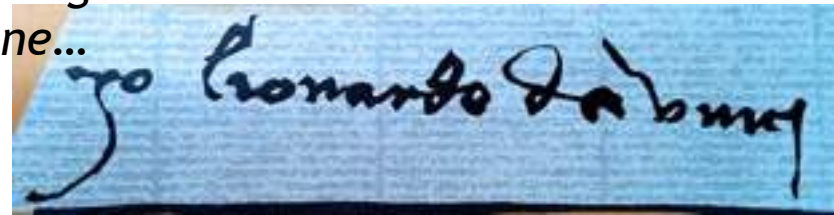
*All our knowledge has its origin in our perceptions.*

*The grandest of all books, I mean the Universe, stands open before our eyes.*

*Constancy. Not who begins but he who perseveres.*

last writing: *The soup is getting cold...*

last words: *...so much undone...*







## Leonardo's Lessons:



Question...always...constantly  
Be Curious - about everything

Everything is connected

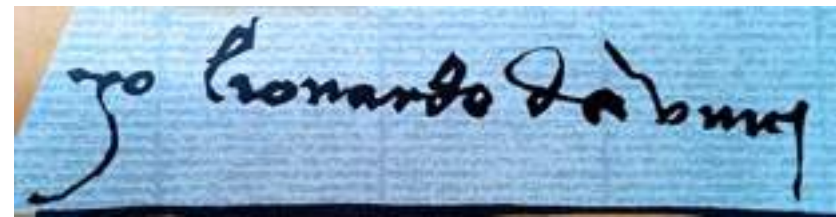
*Ostinato rigore* - don't be superficial, be persistent

*Saper vedere* - learn to see to understand

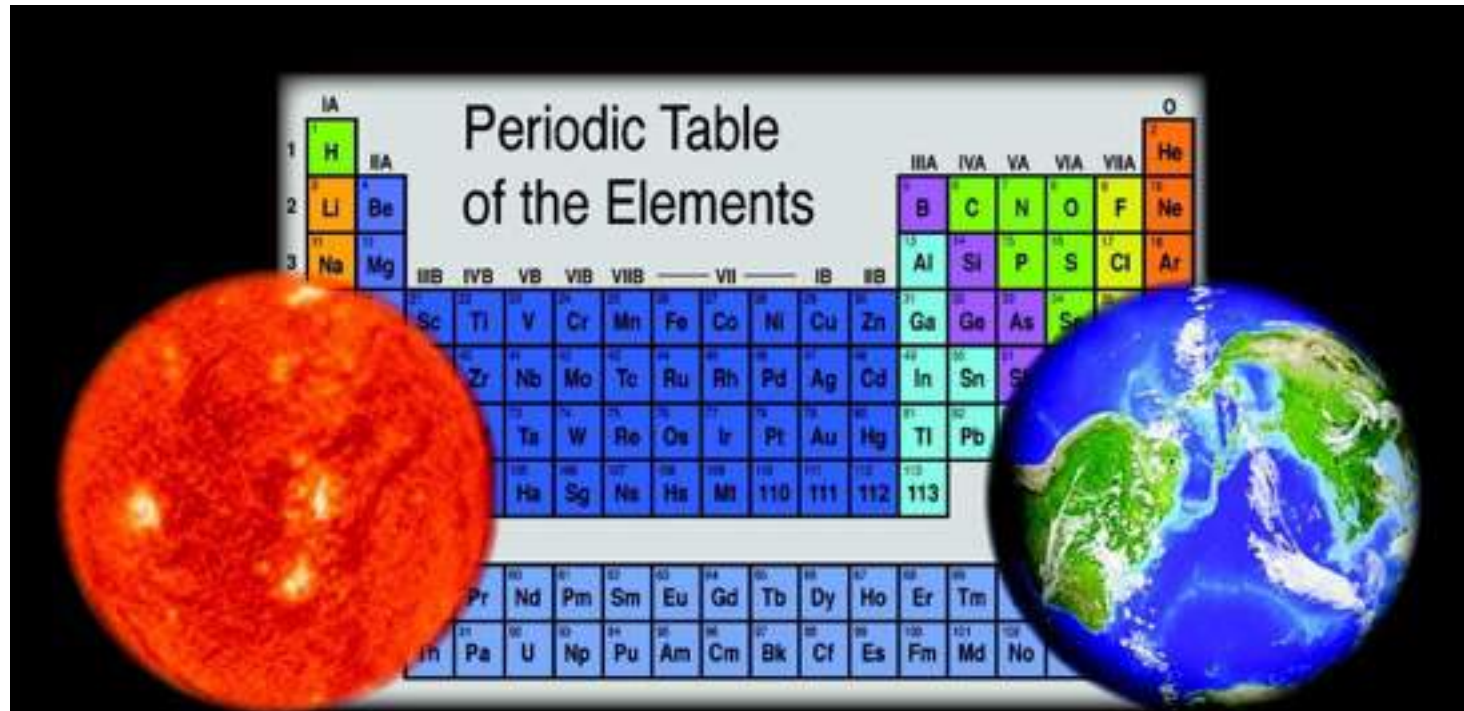
Communicate

Experiment

YOUR questions....



# Reality



**All there is**

[www.2andrade.org](http://www.2andrade.org)