

The Da Vinci Globe

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By

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Cambridge
Scholars
Publishing



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This book first published 2018

Cambridge Scholars Publishing

Lady Stephenson Library, Newcastle upon Tyne, NE6 2PA, UK

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

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ISBN (10): 1-5275-1134-0

ISBN (13): 978-1-5275-1134-7

*To be allowed to see the beginning of the early modern through the eyes
of Leonardo da Vinci is a gift of Fortune.*

—Professor Dr. Stefaan J. Missinne

TABLE OF CONTENTS

Preface	ix
Introduction and Methodology	1
Chapter I	3
Physical Description of the Ostrich Egg Globe and Ostrich Eggs in Italian Renaissance Art	
Chapter II	35
Physical Properties of Ostrich Eggs	
Chapter III	38
Cantino Map of 1502 and Florence's Trade Dependency	
Chapter IV	46
The Lenox Globe and the Renaissance Painters who worked as Cartographers	
Chapter V	61
The List of Geographical Names Engraved on the Ostrich Egg Globe and Evidence of Leonardo's Authorship	
Chapter VI	90
A Contemporary Globe called the Jagellonian Globe ca. 1510 based on the Lenox Globe	
Chapter VII	97
Leonardo da Vinci in Florence, 1504: The Birthplace of Italian Globe Making and Further Evidence of his Authorship	
Chapter VIII	119
Leonardo as a Globe Maker and the Discovery of the New World	
Chapter IX	137
An Art Historical Approach to the Details of the Ostrich Egg Globe	
A. Cornucopia – pyramidal shaped composition	
B. Drowning Sailor – generic interpretation and technique	
C. Rebus – intellectual ingenuity and mental process	
D. Wording – word games using elision	
E. Spelling style – opaque and blurred	
F. Leonardo as an Aristotelian disciple	
G. Engraved mountains – conic shaped and individualised	
H. Ships, ladder, captain and waving patterns – depth effects with great detail	
I. The four elements: fire, wind, earth and water	
J. Monster – compilation – eye – virtual virtue	
K. Coastal Lines – cartographic intelligence	
Chapter X	176
Empirical Results of the Scale of the Ostrich Egg Globe	
Chapter XI	184
Evidence of Leonardo's Preparatory: Drawing for the Making of the Ostrich Egg Globe	
Chapter XII	196
New Evidence from Leonardo's "To Do" List dating from 1504	
Chapter XIII	239
Scientific Testing of the Ostrich Egg Globe	

Chapter XIV	259
Reception of the Ostrich Egg Globe and the Lenox Globe	
Chapter XV.....	261
Conclusions	
Acknowledgements	264
Appendix I.....	265
Summary of Evidence based on Similarities, Indices and Codices substantiating da Vinci's Authorship of the Ostrich Egg Globe dating from 1504.	
Appendix II.....	271
This summary gives an indication of the number and types of citations by Leonardo in his codices, proof of his investigations and inventions.	
Appendix III	272
Extensive timeline of Leonardo's Ostrich Egg Globe from initial visionary experiments to finished artifact and Vincian Codices and Manuscripts, and copies thereof:	
Vincian Codices and Manuscripts, and Copies Thereof.....	280
Sources and Bibliographical References for the Relevant Timeline	281

PREFACE

The origin of this monograph can be traced back to the first exciting weeks after the discovery of the small unrecognised treasure in London, in June of 2012.

The serendipitous finding of an artefact of Leonardo da Vinci from 1504 is a mesmerizing thrill, ever expanding and growing. Numerous international academics and visitors, who have accepted an invitation for a private viewing, have expressed their positive sentiment and wonder at such an amazing discovery. Their suggestions and advice prompted me to write this book.

Trying to find a world-leading authority on Renaissance globes is not easy. There are not many surviving globes from the early-sixteenth century, for one thing. Finding an independent and qualified expert on Leonardo da Vinci *and* on Renaissance globes is quite impossible.

To research the life, cartographic works, techniques, comparatives and similarities of Leonardo da Vinci, I completely absorbed the available bibliographic knowledge in order to read, capture, consult, discuss, review, correct, learn and formulate. This research brought me to leading libraries in Florence, Rome, Milan, Vinci, Paris, London, Venice, New York and many others.

The resulting book is unique in many ways. Leonardo thought in pictures, so I decided to include numerous Da Vinci drawings, phrases and pictures of the Ostrich Egg Globe and its details (© stefaan missinne 2018).

Leonardo was one of the first, scientifically, to build empirical models to support his theories, so I used his approach; where he three-dimensionally drew what he saw, so I too decided to think and formulate like Leonardo.

This discovery of the globe of Leonardo da Vinci may turn out to be one of the most important cultural events in the first two decades of the twenty-first century. Its significance could be seen as equal to the discovery of the Stone of Rosetta, the scrolls from the Holy Sea or the Venus de Milo in previous centuries.

A discovery as wonderful yet unusual as this may take many years to work its way into the research world. The beauty of Da Vinci is that despite criticism, such attention only serves to heighten the experience, to make the image more classical, and to continue the experimentation. The curiosity of technique and the evidence offered might prove to be a bitter pill for some academicians to accept. Established theories are called into question. Yet, this is something that Da Vinci himself excelled at.

The timing of this book is not coincidental. Its publication takes place the year prior to the many worldwide commemorative exhibitions and events planned for the 500-year anniversary of Leonardo's death on May 2, 1519.

As a very open minded and curious child, I admired a small globe on a wooden stand in our family home library in Belgium. Once the top screw of the inclined metal axis was lost, and I could hold the small world in my hand. No longer was north upside. Also, I could now easily examine the southern hemisphere which became to me an eye opener of new knowledge.

Most certainly, more than five hundred years ago, upon demonstrating this small globe, showing an open seaway from Florence's Arno to the new world, the same sense of astonishment must have captured the souls of his Tuscan friends such as Giovanni d'Benci.

This astonishing feeling of holding the world in the palm of one's hand *like a tilting toy* can be repeated every day and any day by everyone, somewhere on earth. Leonardo was historically the first ever to make and hold it.

Numerous people have supported me, and I especially wish to thank my parents for allowing me to uncover and to become an independent thinker and world traveler from an early stage on.

Discovering the Da Vinci Globe allows me to share this experience with my readers. Since my find which was published in the worldwide news in 2013, the list of acknowledgments has become longer and longer, and I am grateful to all who have kept the research progress secret.

I would like to thank the testing laboratories in Vienna, Munich, Mannheim, Zurich, Berlin, Ravenna, Tulln, Wiener Neustadt and Innsbruck and the written irrevocable endorsements of both the Ostrich Egg Globe and its identical copper cast twin, the Lenox Globe, amongst others from the Head of the Archive of the Vatican State. I particularly wish to thank my family for supporting such a research endeavor, of being encouraging and understanding, and for providing an emotional environment which allowed me to think and understand Leonardo.

The heavy costs of such seven year long research were borne lightly making their support even more crucial to the completion of this work.

Finally, I owe special thanks to numerous esteemed Leonardo da Vinci scholars in general and from Italy in particular and visiting Ambassadors to Austria, together with their spouses, from Belgium, France, Spain, Portugal, Brazil etc. and other foreign dignitaries who have shared the thrill of this discovery from the Italian Renaissance. Indeed, their questions, expressions of curiosity and learned expertise have fuelled the fire of this research book by asking numerous questions, the making of erudite suggestions, and the referral to other unique and independent researchers.

I wish to share the results of the painstaking research, and the sensation of this veritable icon, which Leonardo in 1504 calls *my globe* with the readers of this book. A film documentary and a non-fiction book are in the works to be completed.

Finding the Da Vinci Globe is a tremendous experience. Noting the new and unusual geographies shows the true curiosity of the mind of a universal Genius.

To accomplish both tasks heralds a special genius which I hope to share with you for generations to come.

Professor Dr. Stefaan Missinne, Vienna June 2018.

INTRODUCTION AND METHODOLOGY

The present book is based on research that started in 2012 and which was completed in 2018. The initial phase of the research concentrated on the scientific examination of the Ostrich Egg Globe, substantiated by cartographical data. I therein refer to the discovery of the Ostrich Egg Globe and subsequent publication in the *Portolan* that followed. For authentication, interdisciplinary research was combined with desk and intensive field research. This was supplemented by data from experts in different disciplines such as in the history of cartography, mathematics, the history of art, the history of the Italian Renaissance, casting techniques, physics, cosmography, iconography, graphology, etc.

Worldwide attention to the discovery of the oldest engraved globe in the world, for example in journals such as *Nature*, *Wired*, etc. was fuelled by the publication of an article on page three of the *Washington Post* in August 2013. Genuine interest resulted in a flood of requests for additional information: the astonishment was worldwide. This initial work was followed by further research concentrating on additional Italian sources. Personal contacts with experts on Leonardo da Vinci, such as Prof. Carlo Pedretti and Italian Renaissance cartography experts such as Univ. Prof. Dr. Leonardo Rombai, were established.

This culminated in a demonstration of the findings for the Italian Geographical Society, at the invitation of Prof. Dr. Leonardo Rombai in Rome in 2014. At this time, the research on Leonardo and his works came to the forefront as I was offered the role of scientific advisor on Leonardo for an exhibition in Nuremburg. In addition, I appeared on German television and, subsequently, on Belgian TV.

At the exhibition in Nuremburg, several presentations were given on the chemical research performed by Leonardo, as well as on a miniature skull attributed to him. The findings on the latter were published in the *Wiener Medizinische Wochenschrift*, a medical journal published by Springer Publishing. During the second phase of my work, the Washington Map Society agreed to publish a few auxiliary research findings on the Ostrich Egg Globe.

An article on the oldest American Birth Certificate ca. 1507 was published 2015 in SCIRP by Scientific Research Publishing. This article was downloaded worldwide more than 4,000 times over a period of two years (an average of more than 5 times a day). This was followed by an invitation, from the Armenian embassy in Austria, for me to give a public presentation on the discovery of the word “*ARMENIA*” on the Ostrich Egg Globe; this lecture was delivered at the symbolic venue of the Austrian National Library in Vienna. The international attention aroused by this article ultimately created the initiative to write this book.

In the history of art “*Leonardo da Vinci*” is a magic name, automatically drawing the intense attention of the scholar, while also being a magnet for critique. In the academic field of art history, there are many important figures: Pedretti, Kemp, McCurdy, Kwakkelstein, Bambach, Clayton, Zöllner, Richter, Starnazzi, Bernardoni, Clark, Brown, Galluzzi, Villata, Camerota, Shell, Caruso, Veltmann, Marani, Suida, Vecce: just to name those who always “turn up.” Each one of these art historians has concentrated on specific aspects of Leonardo’s *oeuvre*, such as his drawings, his paintings, his codices, etc.

Their academic connoisseurship—the validation of the attribution based on an expert’s eye and the application of the standard repertoire of art-historical argumentation and counter argumentation—may be somewhat limited and, thus, difficult to apply to a globe. As a consequence, the interdisciplinary research on particular objects, such as a globes or scientific instruments, remains a much undeveloped field, particularly with regard to Leonardo da Vinci. Hence, reading a globe as a piece of art is something of a novel experience.

The discovery of an early 16th century object, possibly originating from the workshop of Leonardo, raised some so-called “red flags.” The latter included certain assumptions made about the Ostrich Egg Globe: a 19th century scrimshaw; a 20th century forgery of the Lenox Globe; a copy made using a fax machine; a plastic replica of the Lenox Globe; and even a recent work by a carpenter. These are known as “*pars destruens*,” or demolishing parts, all of which could have been dismissed, are nevertheless considered and discussed in this publication.

The arguments in defence of Leonardo’s paternity of such “*pars construens*” are also the subject of this book. These include: the logic of the globe in Leonardo’s artistic works; the authorship proposal; the iconographical vocabulary of the ostrich egg; the finding of a unique world map showing America among his codices; the experimentation with new techniques and materials; the geographical scale of the globe with Leonardo’s calculation of the diameter of the world; the stylistic characteristics of details such as those from ships and monsters of the globe; the hairstyle of the drowning sailor; the finding of arsenic in a red copper micro droplet on the egg shell and the left-handed hatching, some of which is crossed; the solving of the problem as to the origination of the phrase “*here are dragons*,” and “*ANFURION*,” etc.

The codices of Leonardo, as primary sources, were studied in great detail. This was combined with a critical analysis of the existent literature, the systematic translation of texts, as well as fresh literary criticism of my own. This research specifically excluded a nation-based approach. I primarily concentrated on the period of Leonardo's intensive studies of geometry. The interdisciplinary approach adopted was supplemented with a critical historiographical assessment, studying recent publications on Leonardo's inventions and numerous scientific techniques such as computer tomography (CT), x-ray fluorescence (XRF), carbon-14 dating (C-14 analysis), strontium isotope tests (MC ICP MS) and electron microscope analysis (CED-REM).

Numerous books have been published on Leonardo and his works. The competition among the above-mentioned art historians to stand in the shadow of the light of Leonardo is fierce. Such interest, however, is not always purely academic, and this has led to long and intense discussions. As to my own research area, the still-dark aspect of Leonardo's experimentation with globes, this has been ignored.

It was Professor Carlo Pedretti, my mentor, who was willing to give the initial impetus to my research in the second of the three above-mentioned phases. Without his support and academic understanding, it would have been impossible to complete this book. Thank you Dr. Carlo Pedretti, as I also thank the many academics and globe specialists in the list of acknowledgements.

Instead of the word "*folio*" I utilise the word "*page*" throughout this book. The reason for this is that while "*folio*" does mean leaf, it has an additional meaning: size (fo), which refers to a method.

As Leonardo never published a book during his lifetime, the sizes of his codices all differ, and the recto or verso of the page is identified: another reason why I chose to use the word page instead of folio.

Another methodological characteristic of this book is that pictures are used where possible. As the common saying expresses it: "a picture speaks a 1000 words." Lastly, all references to Leonardo and to the codices used in this publication can be traced online at www.leonardodigitale.com. Wherever possible, the vernacular Renaissance Italian inscribed by Leonardo was checked and translated before being used. To understand Leonardo and his works it is necessary to understand the iconographic finesse of his artistic message, and be able to "read between the lines" of what is apparent. Appendix I offers a summary of the material evidence that was discovered. Appendix II offers the Italian vernacular spelling used by Leonardo in his codices. Mirror writing being his favourite, there is a method available (on the webpage mentioned above) to turn his writing around, a feature that helps researchers unveil and shed light on the dark secretiveness of Leonardo's brilliant mind. An extensive timeline of Leonardo's Ostrich Egg Globe, from initial visionary experiments to finished artifact and Vincian codices and manuscripts and copies thereof, is presented in Appendix III. What turns out to be a real detective story, ends with a host of remarkable and significant conclusions.