

Leonardo da Vinci Society Newsletter

editor: Francis Ames-Lewis

Issue 25, November 2005



Recent and forthcoming events

The Annual General Meeting and Annual Lecture, 2006.

The Society's Annual General Meeting will be held on Friday 5 May 2006 at 5.30 pm, with the Annual Lecture following at 6.00 pm. The venue is yet to be confirmed: further details will be circulated with the AGM papers. The lecturer in 2006 will be Francis Wells, consultant heart surgeon at Papworth Hospital, Cambridge, who has for several years been conducting research on Leonardo da Vinci's drawings of the heart (see below in this *Newsletter*), and who is preparing an exhibition on this topic to open in February 2007. The working title of his lecture is 'The Mathematical Heart: Why we should take Leonardo da Vinci seriously in the 21st Century'.

A forthcoming symposium on "Lives of Leonardo"

Dr Rodney Palmer is planning a symposium on biographies of Leonardo, to be held at a venue in London yet to be confirmed, on Friday 15 September 2006. This is the day after the opening of the exhibition entitled *Leonardo da Vinci: Experience, Experiment and Design*, which is to be mounted at the Victoria & Albert Museum from 14 September until 7 January 2007. Speakers in the symposium are to include Professor Charles Hope, Dr Paul Taylor, Dr Juliana Barone, Dr Thomas Frangenberg, Dr Matthew Craske, Dr Rosamund Bartlett, Dr Bradley Collins and, probably, Professor Martin Kemp. The symposium will explore biographical, fictional and psychological approaches to Leonardo. What light do these different narratives shed on Leonardo himself, and on the cultures in which they were written? Why has Leonardo's life story attracted so much attention? How did anecdotes about Leonardo affect

Leonardesque art theory up to the eighteenth century? In what ways do myths of Leonardo distort responses to his art?

Leonardesque News

Professor J. B. Trapp, 1925-2005

We regret to announce the death, a few days before his eightieth birthday, of Professor Joe Trapp, founder-Hon. Secretary of the Leonardo da Vinci Society. Born and raised in New Zealand, he came to England in 1951 and taught in the Department of English, University of Reading. He joined the Warburg Institute as Assistant Librarian in 1953. He became the Institute's Librarian in 1966 and Director in 1976 on the retirement of Professor E.H. Gombrich. He retired in 1990 and was made an Honorary Fellow of the Institute. He was elected a Fellow of the British Academy in 1980. He acted as Vice-President of the Academy from 1983 to 1985 and Foreign Secretary from 1988-95. He served on the advisory councils, committees and boards of the Victoria & Albert Museum (1977-83), the British Library (1980-87), the British School at Rome (1983-87) and was Chairman as well as Trustee of Lambeth Palace Library from 1987-98. In 1990, the year he retired and became an Honorary Fellow of the Institute, he was appointed CBE.

It was greatly to the good fortune of the Leonardo da Vinci Society that, alongside all these activities, Joe Trapp was able and prepared to serve, from 1986 to 1988 as founder-Hon. Secretary to the Society. He was largely responsible for drafting the Society's Constitution, establishing its charitable status, and generally setting the Society's administrative wheels in motion. His support for the Society at

its inception is symbolic of the general encouragement and support of the Warburg Institute, which has one of the major holdings of Leonardo literature in the UK, from which the Society has greatly benefited during its nearly two decades' existence.

A lecture on the underdrawings for the National Gallery's *Virgin of the rocks*

Matthew Landrus writes: The National Gallery, London, offered a lecture on Leonardo da Vinci's *Virgin of the rocks*, given by Luke Syson on the 18th July 2005. He reported on the recent discovery of the painting's two underdrawings. A detailed report of this is published by Syson and Rachel Billinge in the July issue of the *Burlington Magazine* (pp. 450-63). Highlights are at www.nationalgallery.org.uk. A forthcoming issue of the *National Gallery Technical Bulletin* will offer further information about specific portions of the underdrawings. Syson thanked a number of colleagues for their work on the project, including Larry Keith, Carol Plazzotta, and Ashok Roy.

To see the underdrawings, Syson and Billinge used high resolution infra-red scanning equipment and services provided by the Istituto Nazionale di Ottica Applicata (INOA) and the Opificio delle Pietre Dure (OPD), assisted with funding from the EU-Artech project. Infra-red reflectography found traces of carbon under the painted surface. This kind of scan cannot see everything, as it is reliable mainly as a way to study black chalk drawings that are sketched over a primary layer of gesso. Syson and Billinge were surprised to find two overlapping underdrawings for alternative compositions and worked for a 'long time' to appropriately separate elements of the first likely composition (referred to as Composition A) from those of the second likely composition (Composition B). The latter was apparently the second and final choice for the painting. Thus, most of the discussion addressed Composition A, reported by the BBC on 1st July as the 'new Leonardo picture discovered' at the National Gallery.

Introducing both versions of the *Virgin of the rocks*, located at the Louvre and the National Gallery, Syson noted that Leonardo and the brothers Ambrogio and Evangelista de' Predis worked on the Louvre version between the mid-1480s and possibly 1491. Around the time of Evangelista's death in 1491, or as late as 1493, Leonardo and Ambrogio had written an undated

petition to the 'ruler of Milan' – presumably Ludovico Sforza – asking for a large bonus payment before delivery of the painting to the Confraternity of the Immaculate Conception at S. Francesco Grande, Milan. Shortly after the possible time of this petition, Leonardo and possibly Ambrogio were again at work on a similar composition that would fulfil the original commission of the Confraternity. The whereabouts at that time of the first *Virgin of the rocks* is a mystery, though it could have been the 'Nativity' that Ludovico Sforza gave to Emperor Maximilian I between 1492 and 1499. By 1506, according to letters that indicate that there were disputes over payments, the second painting – now at the National Gallery – remained unfinished.

This history established the importance of a period in the early to mid-1490s when the first *Virgin of the rocks* was complete and the second version was in preparation. The first underdrawing of the second version, Composition A, is a dramatic departure from the style of the first painting, as illustrated at:

<http://www.nationalgallery.org.uk/collection/news/newsititems/leonardo/feature3.htm>

With her outstretched right arm and her left hand on her chest, the Virgin expresses greater emotion and energy than in the original painting. Leonardo apparently attempted to improve her pose in the second painting, using a composition similar to those drawn on Windsor RL 12560 and on a sheet in the Metropolitan Museum of Art, New York (no. 17.142.1). Although these drawings are traditionally dated to the early 1480s, Syson and Billinge link them closer to the time of the start of the second 'Virgin of the Rocks' (for reasons discussed in their *Burlington* article, pp. 454-55). They date the Metropolitan Museum drawing to 1485-90 and the Windsor drawing to 1491-93.

In these drawings and in Composition A, the Virgin's outstretched pose also compares to that of the Vatican *St. Jerome*, both figures high up in the composition's space. Syson proposes that both figures were being developed in parallel, and that the *St. Jerome* might also date from the early to mid-1490s, although it is traditionally dated to around 1480. For the National Gallery's project, the Vatican permitted an infra-red scan of two horizontal strips within the *St. Jerome*, which revealed sketches of the saint's head drawn directly on the gesso preparation layer and then additional sketches of his features on the

imprimatura layer (the semi-transparent paint covering the gesso). If Leonardo had abandoned the 'St. Jerome' composition, he might have considered that format useful for the second *Virgin of the rocks*. Moreover, the emotional modelling of the face of St. Jerome and the face of the Virgin in Composition A also compare with the face of St. Philip in the *Last Supper* (c. 1495-97), and the 'Study for the head of St. Philip' at Windsor (RL 12551). It could follow, therefore, that the abandoned pose of the Virgin in Composition A (including the left hand on her chest) was available for use in the pose of St. Philip in the *Last Supper*.

Although these three heads all differ in scale, it is proposed that Leonardo had a mechanical method for reproducing these heads at different sizes and then transferred them to the gessoed panel or wall with the *spolvero* or pouncing technique (i.e. he had the drawings pricked with tiny holes and then pressed them with cheese-cloth bags filled with charcoal dust, leaving tiny dots of the drawings' designs on the white gesso). Black charcoal *spolvero* dots are not visible in the *Virgin of the rocks* underdrawing infra-red scans, though such marks could have been brushed by Leonardo from the gesso preparation and/or drawn over with black or red chalk, or even iron-gall ink. More at issue is the cautious way in which some of the lines form the underdrawings, suggesting that Leonardo or a colleague gently traced them across *spolvero* dots. Syson offered illustrations of several drawings and paintings with evidence of the use of *spolvero*, contrasting those calculated, wobbly lines with other lines in the underdrawings that are 'almost scribbled down'.

Composition A is part meticulous copy and part improvisation. Lines that appear to be meticulous tracings of *spolvero*, Syson proposes, could have followed red chalk *spolvero* dots, which would have had no carbon and are thus missed by the infra-red scanner. Any marks with iron-gall ink would also be invisible in the infra-red scan. It was proposed that Leonardo possibly favoured red chalk as a preparatory marking medium, with the example of fine red chalk sketches found by recent restorers on a preparation layer of the *Last Supper*. I would think it safe to tentatively attribute a red chalk *spolvero* technique to Leonardo, as this is supported by our knowledge of the extent to which he used a combination of metalpoint, ink and black chalk, or occasionally a combination of black and red chalk, as layering and contrasting

drafting methods on various drawings. He was not a slave to a limited range of drafting techniques.

The discussion ended with a question: what prompted Leonardo to abandon Composition A? Perhaps he lacked the time to develop another original work. Perhaps he was simply dissatisfied with the composition. It was proposed that the Confraternity possibly wanted a copy of the same divinely inspired ('God-given') work that hangs in the Louvre, rather than a new, unique design. There is however a rather simpler possibility, namely that the Confraternity simply required that Leonardo stick to the original contract, and thus to the original design.

Leonardo da Vinci's underdrawings for the *Adoration of the Magi* revealed

In a somewhat sensationalist article published on 20 September 2005, *The Guardian* claimed to have been given an 'exclusive preview' of the final results of the analysis by Maurizio Seracini of Leonardo da Vinci's *Adoration of the Magi* in the Uffizi, Florence. This edited paraphrase of the article focuses on the new evidence provided by the underdrawings that Seracini has revealed, using a technique that exploits the fact that infra-red light passes through paint but reflects off the under-drawing. Infra-red photography has revealed many differences between the painting and the underdrawing. Seracini's four-year investigation has been funded by the Swiss-based Kalpa group, a non-profit organisation that supports scholars and their research. Three assistants have worked full-time for almost a year in the final phase, enhancing and assembling 2,400 infra-red images.

As the photographs show, Seracini and his team have conjured from below the amber-brown layer with which much of the panel is covered a collection of Leonardo drawings that have been hidden for more than five centuries. They contain numerous previously invisible – or barely discernible – details. On the right, a finely depicted ox and donkey emerge from 500-odd years of invisibility along with part of the roof of the missing stable. The king scowling over Mary's right shoulder is revealed as a figure of composure and majesty. A host of masterfully sketched faces emerges in the lower left corner. Perhaps the most important discovery for critics and historians is that the two horsemen in the upper right corner are just one small part of what was originally a full-blown battle scene. Visible

through the struggle are more battling men and horses at a distance. 'You get a wonderful sense of Leonardo's creative ferment', said Professor Martin Kemp, one of the few experts who has seen the partial results of Seracini's work. 'The amount of brainstorming going on underneath the painting is remarkable'.

Physical details that are exquisitely rendered in the original design became deformed by the application of the top layer, which is a mixture of pine resin, shellac, carbon and bitumen. Seracini believes this upper layer was applied a half-century or more after Leonardo's underdrawing. But he is convinced that he has discovered the 'true' *Adoration* and that what we have all been looking at for centuries is a distortion created by a 'very minor hand'. We look forward to full publication of these underdrawings, and will expect to report further on Seracini's results when they become more fully accessible.

A rediscovered painting... by Leonardo da Vinci?

The following report appeared in *The Independent* on 17 October 2005:

'Leonardo da Vinci was so fond of the *Mona Lisa*, we are told, that he carried the portrait with him everywhere he went. If he also made room in his luggage for the *Mary Magdalene* that went on show this weekend in the northern Italian city of Ancona after a century buried in private collections, it would be no surprise.

'The two young ladies could not be more different. The *Mona Lisa* is aloof, self-contained and self-possessed, her right hand clasped on her left wrist, all her sensuality concentrated in the secretive vitality of the eyes and the famous small smile. It's the allure of a roaring fire on a winter's day.

'Mary Magdalene's is the sensuality of hot summer. Her hair falls loose on her shoulders, her crimson robe is thrown open exposing her breasts, her right hand tugs at the flimsy veil cladding her stomach. When the fingers of her left hand open the rest of the robe will drop away, exposing her completely. It's a pose of erotic titillation, and there is something hypnotic about her gaze, directed at a person unseen off to the artist's right.

'The *Mary Magdalene* has long been attributed to Leonardo's pupil Giampetrino. But Carlo Pedretti, the Leonardo expert at the University of California at Los Angeles, who is co-curating the

exhibition, said: "Because of its very high quality, I am inclined to believe that it is much more than a supervision of the student by the master."

'The painting has not been seen in public since a brief airing in the United States in 1949. A black and white photograph of it was taken in the 1920s. Professor Pedretti, who is 77, tracked it to a private collection in Switzerland. He wants the picture to undergo an infra-red reflectogram, which will reveal if there are sketches underneath the paint, because, he says, Leonardo's sketches are easy to identify. "One extraordinary thing," he said, "is that it is painted on an intact wood panel, just like the *Mona Lisa*".

Professor Pedretti's new attribution of this painting to Leonardo da Vinci himself is thought-provoking; but many other Leonardo specialists may prefer to retain the traditional attribution to Giampetrino.

A television documentary on Leonardo da Vinci's *Last Supper*

Ian Jones, the producer-director of this forthcoming documentary, writes: Fulmar Television and Film are currently preparing their fifth series of *The Private Life of a Masterpiece* for broadcast on BBC2. Each of these fifty-minute documentaries examines the history of a single artistic artefact, from its creation and initial reception to its current role in popular culture. For Easter 2006, three religious works are under examination: Dali's *Christ of St John of the Cross*, Piero della Francesca's *Resurrection*, and Leonardo's *Last Supper*.

The *Last Supper* programme has already finished its principal filming in Milan, Tuscany, England and the United States, and is in the early stages of editing. It includes interviews with Martin Kemp, Pinin Brambilla Barcilon, Pietro Marani, Luke Syson and Charles Nicholl.

More unexpected contributions come from Tom Sokolowski of The Warhol Museum in Pittsburgh (on Warhol's 1987 *Last Supper* series), Alessandro Vezzosi of Vinci's Museo Ideale (on the *Da Vinci Code* and parodies) and Timothy Verdon, art historian and Canon of Florence Cathedral (on the religious symbolism of Leonardo's great work). The fresco artist Fleur Kelly will also be attempting to recreate certain aspects of Leonardo's idiosyncratic technique.

Martin Kemp was filmed in the refectory of Santa Maria delle Grazie 'stalking the

perspective' of the *Last Supper*. Possibly for the first time, a film crew was allowed to take a large jib arm into the refectory to raise the camera to the five-metre height that approximates to the mural's ideal viewing position. The finished programme should – budget permitting – also contain computer graphics that illustrate the layout of the tables in the refectory in the late fifteenth century.

Towards the end of the programme, Jonathan Nelson (Syracuse University in Florence), David Rosand (Columbia) and Alessandro Vezzosi comprehensively prove Dan Brown wrong in his *Da Vinci Code* assertions. Alas, as the programme goes out, possibly on Maundy Thursday 2006, just before the film of the novel opens, theirs might not be the last word on the subject.

A new book by the Society's Hon President

Members of the Society will be pleased to hear of the recent publication of *Piero della Francesca. A Mathematician's Art*, by J.V. Field (New Haven and London: Yale University Press 2005; ISBN 0-300-10342-5). This book is the principal outcome of a grant to Birkbeck College from the Leverhulme Trust, which enabled Dr Field to carry out three years' research and writing on Piero della Francesca. The author demonstrates that Piero, one of the greatest painters of the fifteenth century, was also an accomplished mathematician. This is the first study of Piero's work as both mathematician and painter: it explores the connections between these two sides of his activity and thus enhances our understanding of both his paintings and his writings. Dr Field begins by describing Piero's education, family background and training as a painter, and examines the strong sense of three-dimensional form shown in his art and the abstract solid geometry discussed in his writings. This is followed by consideration of Piero's treatise on perspective and paintings that exemplify the prescriptions it provides; and by an assessment of the optical or pictorial 'rules' that Piero followed as a painter: he is identified as an exemplar of a learned craft tradition. The book concludes by considering the historical significance of that tradition and its connections with the extensive changes in natural philosophy that began to appear in the next century – the changes that historians of science know as the 'Scientific Revolution'.

A study of Leonardo drawings leads to a new technique in heart surgery

The following paraphrases a report posted on the *BBC News* website on 28 September 2005:

'A UK surgeon has pioneered a new way to repair damaged hearts after being inspired by artist Leonardo da Vinci's medical drawings. The intricate diagrams of the heart were made by Leonardo 500 years ago.

'Mr Francis Wells from Papworth Hospital, Cambridge, says Leonardo's observations of the way the heart valves open and close was revelatory. He has used this understanding to modify current repair operations, and has successfully treated 80 patients. The drawings allowed him to work out how to restore normal opening and closing function of the mitral valve, one of the four valves of the heart. Until now, surgeons have repaired a floppy valve by narrowing its diameter. However, this can restrict the blood flow further when the individual is exercising and working their heart to the maximum.

Mr Wells said: "It's a complete rethink of the way we do the mitral valve operation. What Leonardo was saying about the shape of the valve is important. It means that we can repair this valve in a better way". The job of the mitral valve, which is made up of two flaps, is to stop blood flowing in the wrong direction in the heart. It works a bit like a pair of doors, slamming shut to stop blood returning from where it came. In some people it stops working properly, and becomes like a swing door, letting blood flow backwards through it, which means the heart has to work harder to do its job of getting blood out into the arteries and around the body. Narrowing the diameter of the valve opening with surgery helps, but Mr Wells, with help from Leonardo, believes he has found a better way.

Leonardo worked out in the 1500s that the opening phase of the mitral valve was extremely important; this can be compromised with conventional surgery because the opening is made narrower than normal. Mr Wells says that he can now repair the floppy mitral valve in such a way that it does not alter the normal diameter of the valve when it is open, so that the individual can return to vigorous exercise without any problems. He said that Leonardo had a depth of appreciation of the anatomy and physiology of the body – its

structure and function – that perhaps has been overlooked by some. He is now looking back at many of Leonardo's other drawings of the body to see if these might also help medicine now.

A change in format of the *Newsletter*.

It is no longer possible for the Society to have its *Newsletter* printed at Birkbeck College, as hitherto. Instead it will be produced at the University of Greenwich. However, the equipment available there does not allow for printing on A3 paper, so that henceforth, as in the case of this issue, the *Newsletter* will be printed on A4 paper and stapled. We hope that this will cause no inconvenience to readers.

The Leonardo da Vinci Society

We would always be grateful for suggestions of material, such as forthcoming conferences, symposia and other events, exhibitions, publications and so on, that would be of interest to members of the Society for inclusion in this *Newsletter* or on the webpage, which can be visited at this address:

<<http://www.bbk.ac.uk/hafvm/leonardo>>

President: Dr J.V. Field, School of History of Art, Film and Visual Media, Birkbeck College, 43 Gordon Square, London WC1H.0PD; e-mail: jv.field@hart.bbk.ac.uk

Vice-President: Emeritus Professor Francis Ames-Lewis, 52 Prebend Gardens, London W6.0XU; tel.: 020.8748.1259; e-mail: f.ames-lewis@bbk.ac.uk

Secretary/Treasurer: Tony Mann, School of Computing and Mathematical Sciences, University of Greenwich, Old Royal Naval College, Park Row, London SE10.9LS; tel.: 020.8331.8709; e-mail: A.Mann@gre.ac.uk

Committee members:

Dr Rodney Palmer, 4 Holland St, Cambridge, CB4 3DL; e-mail: rodney.palmer@ntlworld.com

Professor Frank A.J.L. James, Royal Institution Centre for the History of Science and Technology, Royal Institution of Great Britain, 21 Albemarle Street, London W1X.4BS; e-mail: fjames@ri.ac.uk

Matthew Landrus, Wolfson College, Oxford; e-mail: matthew.landrus@wolfson.ox.ac.uk

Dr Juliana Barone, St John's College, Oxford; e-mail: juliana.barone@sjc.ox.ac.uk

Please send items for publication to the editor of the *Leonardo da Vinci Society Newsletter*, Emeritus Professor Francis Ames-Lewis, 52, Prebend Gardens, London W6 0XU; tel. and fax: 020.8748.1259; e-mail: f.ames-lewis@bbk.ac.uk