

AUTHENTICATION  
IN ART

## An Authentic & Happy 2018

The Authentication in Art Foundation board and organizers wish everyone an authentic and happy 2018.



**Milko den Leeuw of Authentication in Art interviewing Prof em Dr Jehane Ragai, author of "The Scientist and the Forger" and Emeritus Professor of Chemistry at the American University of Cairo.**

Dr. Ragai, a surface scientist who studied for her PhD in London, is an emeritus Professor of Chemistry at the American University in Cairo.

As a faculty member in the Department of Chemistry at the American University in Cairo, she has chaired its Senate (1998-2000), its Department of Chemistry (2000-2006) and was the Director of its Chemistry Graduate program (2008-2013).

Ragai has a keen interest in Archaeological Chemistry. She was a consultant to the American Research Center in Egypt (ARCE) Sphinx project, has served on the National Committee for the Study of the Sphinx, and from 2001–2008 was a member of the Board of Governors of the ARCE. She has lectured extensively around the

world to university and museum audiences on the Scientific Detection of Forgery in Paintings and on Ancient Egyptian Science.

Since 2008, she has been a jury member for the l'Oreal-UNESCO, Women in Science award, founded by the Nobel laureates Christian de Duve and Pierre-Gilles de Gennes.

She is the recipient of several AUC Trustees merit awards as well as the School of Sciences and Engineering award for her role as chair of the chemistry department. In 2013 she received the university wide best teacher award. She was recently elected as a foreign member of the Royal Swedish Society of Arts and Sciences in Gothenburg (a multidisciplinary research academy established in 1778).

**Your book publication “The Scientist and the Forger” was a great success, and the second edition is now in the making. What struck you most about the field of authentication during preparations for the first edition?**

In the preparation of the first edition I was particularly impressed by the wide spectrum of sophisticated analytical techniques now available for the analysis of paintings, which give us information unattainable in the recent past. I also realised that in some cases it is crucially important to identify the most appropriate tool that can give a definitive answer in an authentication process.

Let me be more specific:

- The recent technique of ‘Lead Isotope Ratio Determination’ was applied, and gave compelling evidence supporting the attribution of *St Praxedis* to Vermeer. Lead white samples taken from both *Saint Praxedis* and from another contemporary and uncontested work by Vermeer, *Diana and her Companions*, indicated that the lead used in *Saint Praxedis* was of Flemish/Dutch origin and the paint closely matched that used in *Diana and her Companions*.
- “*Still life with meadow flowers and roses*” was declared a genuine Van Gogh only when the technique of ‘Synchrotron X-ray radiography’ was used to determine the underdrawing and gave a result that concurred with other art-historical evidence.
- “*Sunset at Montmajour*” was declared as a genuine Van Gogh only when newly developed ‘computer algorithms for the analysis of a weave canvas’ indicated a close agreement between the distribution of the warp and weft directions in it’s canvas and in that of another genuine Van Gogh painting.
- “*Contrast of Forms*” believed to belong to Léger’s abstract series was declared a forgery when the crucial technique of ‘Accelerator Mass Spectrometry’ measured the concentration of radioactive Carbon 14 ( $^{14}\text{C}$ ) and revealed that the painting was produced after Fernand Léger’s death. Such a test is based on the fact that nuclear tests carried out in the 1950s and 1960s increased the level of  $^{14}\text{C}$  by almost 100% resulting in what is referred to as the ‘bomb peak’ effect.

.....and so on.

**The necessity for building bridges between separate areas is widely known, although it seems to me only few want to get out of their bubble. Did you find any particular motivation for this, or is it a sign of the time?**

I have always had a keen interest in the interaction between the Humanities and the Sciences and have published a number of articles that deal with such a connection. One particular area that appealed to me was Archaeological Chemistry which led me to develop and teach a course at AUC, for non-science students, entitled “*Chemistry, Art and Archaeology*” where the students were taught to build bridges between separate areas of knowledge.

Also my work as a chemical consultant for the ARCE Sphinx project partly entailed the analysis of pigments extracted from the Sphinx precinct as well as testing mortars extracted from the Khafra (Kephren) Valley Temple and from the heart of the Khufu (Keops) pyramid, to assess if the latter could be diagnostic of time.

As far as paintings are concerned my interest in the subject of forgery in paintings was later aroused while teaching a core curriculum science course at the American University in Cairo. In an opening public lecture I decided to focus on the topic “*The Scientific Detection of Forgery in Paintings*” having been impressed by the approach of Stuart J. Fleming in his 1976 book: “*Authenticity in Art: the Scientific Detection of Forgery*”. In the latter, Fleming interwove famous cases with explanations of the scientific techniques used to unravel a forgery. The response my lecture elicited in the 350 or so students attending it first convinced me of the subject’s appeal. I believe this was the main motivating factor that led me to eventually write a book on that subject.

Furthermore my attending the AiA conference in 2016 made me also aware of the need, in the question of authenticity, to build bridges between other key players such as lawyers, insurers, art-historians and educators which led me to write the second edition of “*The Scientist and the Forger*”.

**In authentication research there is a tendency towards imaging and measuring in the same device. If you want seeing and fact finding material research must be identified at the object, and analyzed with repeatable measuring systems; non-destructive and under protocol. What is the most exciting development you have recently seen in the field?**

I have identified two recent exciting developments in the field of authentication that complement the role of the connoisseur (*seeing*) and that of the technical art scientist (*fact finding by analyzing, with repeatable measurements, in a non-destructive manner and under protocol*).

The first is the development of a ‘Synthetic Bioengineered Encrypted DNA-based Identifier’ produced in the lab, and linked to other informatics technologies, which would act as a permanent marker for the artist’s work upon its creation or discovery. The second is the application of ‘Blockchain technology’ in art, which would act as a public database or ledger that is cryptographically secure and on which data records and transactions have been permanently stamped and registered, instantly appearing on a vast network of computers.

I think both developments will revolutionise the art world by providing a far more

secure system, which will enable users to verify a work's authenticity and provenance.

Also an interesting (*as opposed to exciting*) development, is the recognition today, by important auction houses, of the importance of science in complementing the connoisseur's eye. What is telling in this regard is the recent purchase by Sotheby's of the reputable scientific firm Orion Analytical, strongly suggesting that scientific analysis has become part of the auction house's due diligence exercise.

**The art market is moving in the direction of an academic approach. The undisputed high priest of art has fallen, it's time to reform. But markets and academics can be a toxic mix. Reforming will put a lot of pressure on economics and politics, but now seems to be right moment to move in a better direction. What is your advice for our field?**

Technical skills that address problems of authentication in art need to be developed through properly structured training and educational programmes. At present, such laboratories are largely the realm of some specialised museums and universities and of a precious few consultants worldwide.

As suggested by the foundation Authentication in Art, I concur that there is a need for the establishment of a unified protocol of investigation within technical research in art and for the development of strategies to promote greater interaction between connoisseurs and conservators. There is also a need to identify the factors that would address the legal evidentiary requirements of the courts.

I also believe that there should be exchange of data and the sharing of findings in works of art providing a pool of evidence for authenticity questions.

Finally, I think that there should be laws protecting authenticators from irresponsible lawsuits that threaten the natural functioning of the art market, which would add trust and protect gallery dealers and art experts. An attempt made in that direction, is the bill passed on June 15<sup>th</sup> 2015 by the New York State Senate, which still has to be approved by the New York Assembly.

Jehane, thank you so much for your time and patience in answering questions for AiA.

Oliver Spapens, thank you for your assistance.

Milko den Leeuw for Authentication in Art - Newsletter January 2018©

# Congress Registration

The registration for the Authentication in Art 2018 Congress is open. If you register before 15 February 2018, you can profit from our early bird registration.

Register now by clicking on the link:

<http://authenticationinart.org/congress-2018/congress-registration/>

Please click here to enjoy the full Congress program:

<http://authenticationinart.org/congress-2018/congress-program-2018/>

## Call For Posters

Authentication in Art invites submissions of proposals of 500–700 words (up to 3000 characters) for poster presentations, to be presented at the congress in The Hague, The Netherlands, 7–8–9 June, 2018. The Topics of the AiA 2018 Congress will be: Technical Art History, The Center of it all: The Object, the AiA/NAI Alternative Dispute Resolution Board (Art & Law) and Technical Art History Database (TAHDa).

The congress language is English.

Please submit your proposal to [info@authenticationinart.org](mailto:info@authenticationinart.org)

For more information please visit:

<http://authenticationinart.org/congress-2018/call-for-posters-2018/>

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