



The Analyst

Volume 7, Issue 1

November 2017

3rd International Symposium, London

The Royal Philatelic Society London hosted 53 delegates to IAP's third symposium, held at the Society's clubhouse, No. 41 Devonshire Place.

A delightful gourmet dinner was kindly provided and

Jonas managed to keep us on schedule with firmness and good humor.

Chris Harman RDP, Hon. FRPSL, chaired all sessions. Chris' affability and cheerfulness set a collegial and re-

lator Daniel Piazza, and the Wilson Blount Research Chair, Dr. Susan Smith. Participants also included David Beech and Paul Skinner, the retired and current Lead Curators of Philatelic Collections at the British Library.

Demonstrations

Activities at the clubhouse began on 12 October as an open house with the RPSL Expert Committee. Visitors had an opportunity to examine the committee's reference collection and technical equipment.

Demonstrations of technical equipment were given by invited exhibitors. A Bruker representative discussed the capabilities and uses of their newest instrument for X-Ray Fluorescence work, the M4 Tornado.

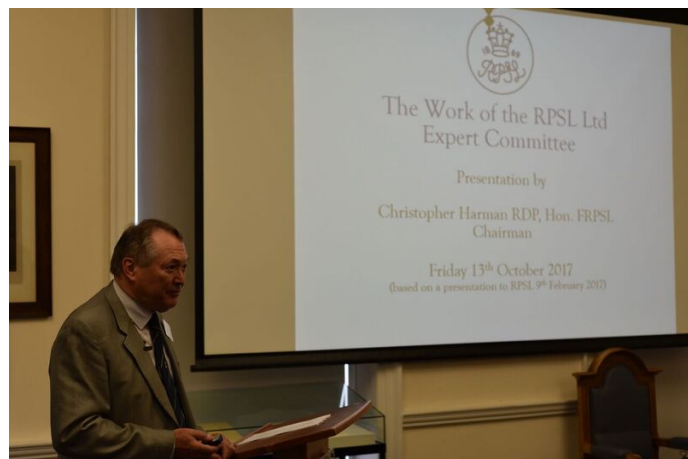
The newest version of Foster & Freeman's Visual Spectral Comparator (VSC 8000) was run through its paces to show several new features added as a result of user requests. These include a workstation-based, a better user-centered design, higher resolution imaging, and hyperspectral imaging for recognition of inks.

Expertization

In his keynote address on the work of the RPSL Expert

Committee, Chris Harman emphasized the pitfalls of relying on science or technology alone, especially if the wrong questions are asked, or if the right question is asked but answered using an irrelevant analytical method.

The Vincent Graves Greene Foundation, Canada's premier expertizing agency, was represented by Chairman Ted Nixon and Vice President Garfield Portch. Their use of a VSC 6000 has caused them to routinely ask questions which had been previously difficult to answer with a philatelist's standard tools. A superbly forged change in a stamp's denomination which had gone undetected using standard examination methods was revealed under spot fluorescence.



Symposium Chairman Chris Harman

hosted by Patrick Maselis RDP, RPSL President, on the evening before the symposium. IAP delegates had the pleasure of dining with members of DASV, the German postal history society. Many thanks to Patrick for his kindness and generosity!

Jonas Hällström, IAP Director and Senior Fellow, organized and ran the technical program. It is often difficult to keep those passionate about their subject to adhere to speakers' time limits, but

laxed tone for an audience with a wide range of professional backgrounds. This spurred more questions than might otherwise have been asked by those without experience in technical disciplines—which of course is one of the reasons IAP was founded.

Delegates reflected a wide range of interests and backgrounds. We were pleased with the participation of the Smithsonian National Postal Museum, represented by Cu-



The Philatelic Foundation was represented by Executive Director Larry Lyons, who showed several examples of stamp alteration detected by their VSC 6000 and Bruker XRF device. Larry also presented the results of his re-

Expertization (cont.)

search on the XRF signatures of the U.S. newspaper stamps of 1875-94, which now can be conclusively identified.

Paul Leonard pointed out challenges that have yet to be addressed by philatelic researchers. Two of the most intriguing are the challenge of imaging watermarks in stamps on cover, and the analysis of adhesives.

2017 Symposium Focus

Six of the papers presented at the symposium dealt with chemical analyses of printing inks, variously employing X-Ray fluorescence (XRF), Fourier-transform infrared fluorescence (FTIR), or spectroscopic analyses using proton-induced X-ray emission (PIXE).

Three papers reported results of color analyses, with RGB data collected in one case by a digital camera, and in another using a table-top scanner. One paper detailed PC-compatible software for collecting, analyzing and graphically displaying RGB data using a scanner.

One paper reported progress in high-resolution image analysis using a scanner.

Thumbnail examples of work presented in some of the lectures are included on these pages. Abstracts of all presentations can be found on the IAP website at:

http://analyticalphilately.org/wp-content/uploads/2017/09/IAP-Symposium-2017_Final.pdf.

Research Opportunities

No analytical work on stamp paper was reported, nor apparently is much being done. This is a pity, as there is much to learn about the evolution of fillers, brighteners and sizing, all of which affect printing quality and color.

Pulp composition and fabric are also potentially fruitful areas for study.

IAP has a strategic alliance with the Center for Ink and Printability at the University of Western Michigan. We can also avail ourselves of technical advice from Dr. Robert Hisey, who spent his entire career in paper engineering and is an Emeritus IAP Director. The opportunities are there for an energetic philatelist interested in learning more about stamp paper. We can help you with funding and technical advice.

There is still plenty of research to be done, and IAP stands ready to help with advice and funding. The National Postal Museum laboratory stands ready for your use—at no cost to you. For information about the lab, see: <https://postalmuseum.si.edu/research/forensic-laboratory/index.html>.

2017 Proceedings Volume

The proceedings book will be published in 2018 by the Smithsonian Scholarly Press. All IAP members will receive a free copy, postpaid.

Authors: please send your final manuscripts to our Editor, Dr. Susan Smith, by December 1.

2020 IAP Symposium

The next International Symposium on Analytical Methods in Philately will be held at the Smithsonian National Postal Museum in Washington DC in September 2020. Dates and details will be announced in January 2018.

2018 Dues

Please see the dues-payment form on page 4. We need your help to continue supporting applied technical research in philately. Thanks for your past support!

Ted Nixon and Garfield Portch

Impact of Technical Analyses on Greene Foundation

Detection of Alterations

Retouched Bottom Frame



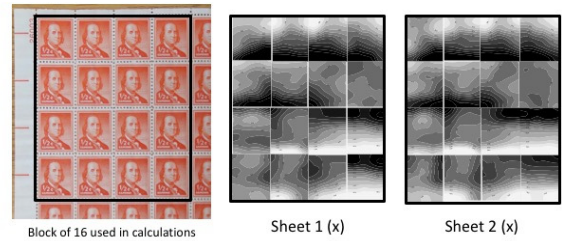
Crease Across Lower Margin



Robert V. Mustacich, Ph.D.

A Versatile Comparison of Stamps by High Resolution

U.S. 1953 Franklin ½ c. PL#26003: Same Patterns on Both Sheets



Each printing plate position has its own distortion patterns – a consequence of small differences in the 'plastic' flow of the soft steel when rocking in each impression

Similar results were obtained comparing sheets from other plates.

Prof. Paul Leonard, BSc (Hons.), CSci, FRPSL

Forensic Philately in 2020 - Challenges and Opportunities

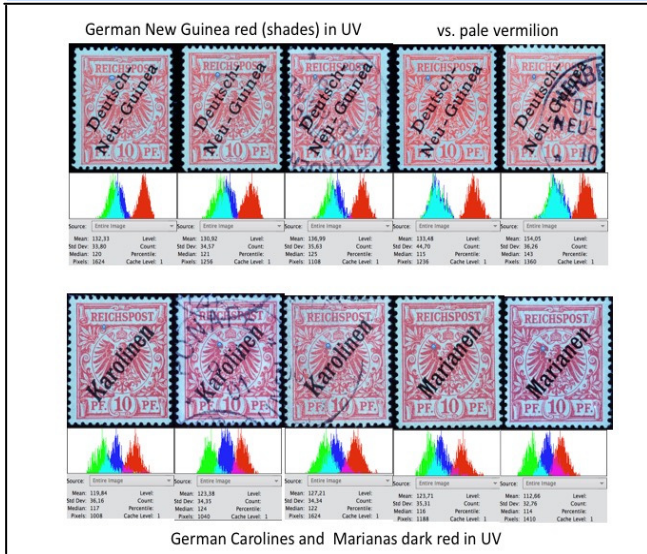
The work of the Expert Committee at the Royal Philatelic Society London

The Foster Freeman VSC6000 has been used for a wide range of forensic philatelic tasks



Identification of fiscal usage and removal

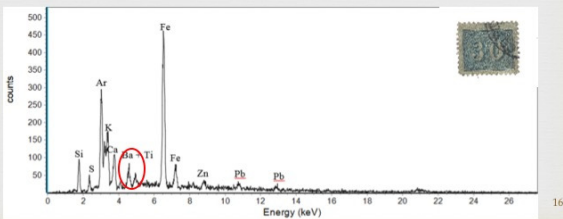
Tim Lyerla
The Use of Tonal Histograms for the Study of Stamp



Fernando Silva Moreira dos Santos
Non-Destructive Analysis: Creating Standards for Imperial Brazilian Stamps from a Case Study of

XRF Analysis – Ba, Ti and Forgery

- ✎ The Cat's Eyes 30 reis Perforated Forgery has barium (Ba), which is not consistent with the issuing period of Cat's Eyes set.
- ✎ In addition, this forgery has titanium (Ti), which is used in pigments post 1920. So, it is a modern forgery.



John Barwis & Harry Brittain
U.S. 24c Purple, 1870-1875: Progress Report on a

Does it matter?



Faultless, well centered "normal" paper, no grill
2009 auction price: \$2,500
Courtesy Siegel Auction Galleries



Faults, poorly centered ribbon paper
Sold privately: \$250,000
Courtesy The Philatelic Foundation

Richard Judge
Chemistry of Aniline Inks, 2-cent Admiral Issues of

Aniline Ink Definitions (2)

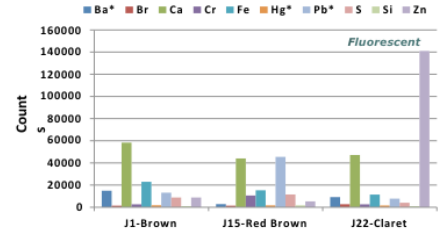


• Philatelist:
“(1) as designating a water-soluble dye in the red color range, usually qualified as ‘scarlet’ that suffuses the paper and shows through the back to a marked degree, and that, when inspected by ultraviolet rays, fluoresces brilliantly, with a golden or flame color - for example, Great Britain 1912 1d, aniline scarlet; (2) as designating any dye that suffuses the paper and exhibits marked fluorescence when inspected by ultraviolet rays”.
(Fundamentals of Philately)

Harry K. Charles Jr., Ph.D.
Exploring Color Mysteries in U. S. Large and Small Numeral Postage Due Stamps using X-ray Fluorescence Spectrometry

Large Numeral Colors

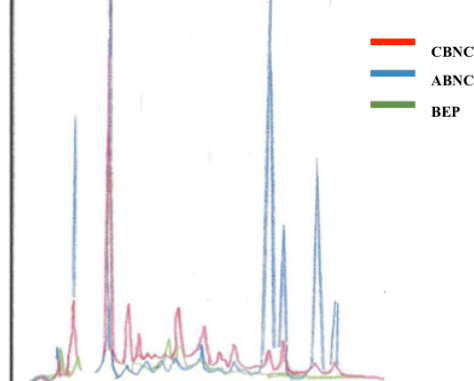
Comparison of the X-ray spectra derived column charts for 1¢ Brown (J1, 1879 Series), Red-Brown (J15, 1884), and Bright Claret (J22, 1891) Postage Due stamps.



Inks of the three main series are distinctly different!

Larry Lyons
Using the Bruker XRF to Distinguish the Six Different Print-

Overlay of the CBNC, ABNC and BEP XRF Results for the Red Newspaper Stamps





Institute for Analytical Philately, Inc.
 PMB 31, 1668 Merriman Road
 Akron, OH 44313

2018 Dues Notice

Level	Annual Amount	My Payment
Patron*	\$100	\$_____
Sponsor*	\$100	\$_____
Supporting	\$100	\$_____
Sustaining	\$50	\$_____
Institutional	\$250	\$_____
Additional Donation		\$_____
Total		\$_____

*Patron and Sponsor levels require \$5,000 and \$2,000 initial pledges, respectively, and \$100 annual contributions.

You may donate through PayPal (knilsestuen@analyticalphilately.org) or by sending a check payable to the "Institute for Analytical Philately, Inc." to the above address.

Your donation may be tax deductible since the Institute is a tax-exempt organization under Section 501 (c) (3) of the U.S. Internal Revenue Code. We will provide a receipt to you early next year.

Thank you for your generous support.

Name _____ (Please print)

Street or Post Office Box _____

City, State, Post Code, Country _____

Email _____@_____

Telephone _____