

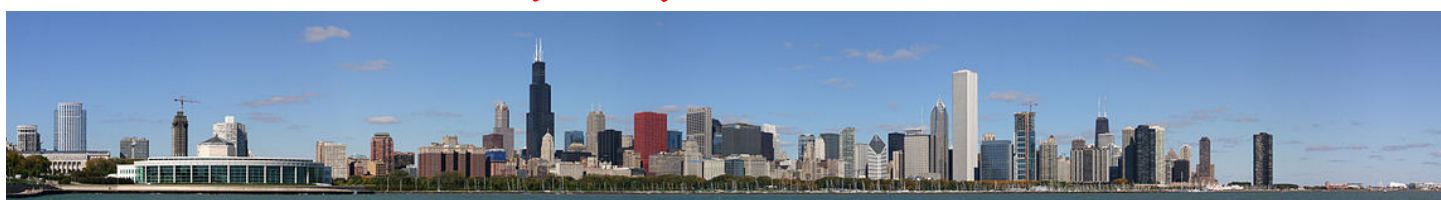


# The Analyst,

Volume 6, Issue 1, August 2015

August 2015

## Talks Finalized for 2015 Symposium



### Inside this issue:

2015 Symposium	1
VGG Foundation	1
2015 Symposium Speakers, Titles and Summaries	2-3
Members' Research	4

### Two Days - 16 Talks!

Sixteen talks have been scheduled for the *Second International Symposium on Analytical Methods in Philately*, which will take place on November 18-19, 2015, in conjunction with **CHICAOPGEX** which follows on November 20-22.

The names of the presenters, talk titles and brief summaries are shown on pages 2-3.

Both the symposium and **CHICAGOPEX** will be at the Westin Chicago Northwest Hotel, 400 Park Boulevard in Itasca, Illinois. The location is convenient both to Chicago's

O'Hare airport and to the city itself. Rooms for the symposium can be reserved at our group rate through our website: [AnalyticalPhilately.org](http://AnalyticalPhilately.org). Rooms for **CHICAGOPEX** must be reserved separately through the website: [Chicagopex.org](http://Chicagopex.org).

### The Vincent Graves Greene Philatelic Research Foundation

From the beginning in June 1975 the Vincent Graves Greene Philatelic Research Foundation has been fortunate to have its Expert Committee staffed by brilliant philatelists each possessing an extraordinary philatelic knowledge base. As we moved into the 21<sup>st</sup> century it became apparent that knowledge and "touchy-feely" experience was not sufficient to express confident opinions on stamps and covers with significant values. The answer to this shortfall was to introduce

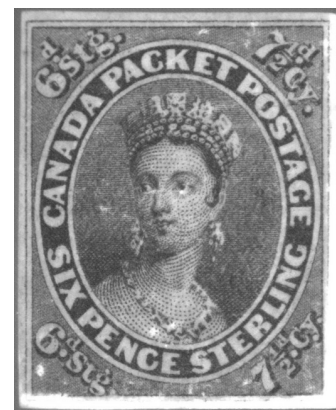
science and analytical procedures to the evaluation process. To that end, in 2012 the Foundation purchased a Foster+Freeman VSC6000/HS to enable the science and joined the IAP in a strategic alliance.

By using the VSC6000 the Foundation can, with confidence, identify, confirm and provide photographic evidence of manipulations such as removal of cancellations, addition of margins, and rebacking of stamps.

Similarly, in many cases we are able to prove that a suspicious stamp or cover is genuine in all respects by showing that there is no evidence to the contrary.

The VSC6000, while a welcome addition to the Expertizing Committee's toolbox, cannot make decisions, but it certainly gives the committee members strong evidence upon which to base opinions. Although committee members are not scientists, the introduction of this technology does allow us to apply scientific principles and ana-

lytic philately to the expertizing process.



(Spot fluorescence reveals this stamp to have been rebacked.)

# Second International Symposium on Analytical Methods in Philately 18-19 November 2015

## Authors, Titles and Summaries

Barwis, John and Brittain, Harry

### **Ink Composition of U.S. 3c Stamps, 1870-1881**

Optical reflectance spectroscopy showed no visible-spectrum differences within the broad range of shades of these issues. Differences in total reflectance are probably due to variation in the amount of whitener used during ink manufacture. FTIR analyses show that all four issues were printed using Prussian blue and chrome yellow to make the green color. All of the inks also contain kaolin clay and calcium carbonate as whiteners. The only unique ink composition is with the Continental stamps, which contain surfactant that reacted with metal oxide to make a metal soap.

Cibulskis, John M., Ph.D.,

### **Towards a Stamp-Oriented Color Guide: Objectifying Classification by Color**

An approach to the construction of a stamp-oriented computer color guide is discussed, including a process for determining representative colors and the handling of scanner calibration.

DeBlois, Diane and Harris, Robert Dalton

### **Modeling Postal History with Postal Numbers**

A post-1836 map of the postal routes of New York State, together with information on the mode and frequency of delivery, can show the economies of scale of the postal system's scale-free network and demonstrate the radically local nature of postal history.

Eubanks, Gordon and Brittain, Harry

### **Using XRD and IR-ATR to Determine Pigment Composition of the United States 5 cent 1847 Issue**

Non-destructive techniques of X-ray diffraction (XRD) and infrared absorption spectroscopy with attenuated total reflectance sampling (IR-ATR) determined the ink compounds used to print the first United States 1847 5¢ stamps. XRD identified lead sulfide and lead tetroxide, while IR-ATR demonstrated the presence of white calcium carbonate.

Hällström, Jonas

### **Fakes, Forgeries & Experts Journal (FFE): A "Statement of Purpose" and "Responsibility"**

A general characterization of the purpose, role, and responsibilities of expertising groups is presented, with the Fakes, Forgeries and Experts Journal used as an example. The resources, prescribed strengths, benefits, values and limitations of such group's opinions are discussed.

Judge, Richard H.

### **IR Analysis and Characterization of the "Aniline" Ink Variety of the 2c Admiral Carmine Issue of Canada**

The author shows how reflectance spectroscopy and color analysis techniques are used to investigate differentiation of the colors of a popular Canadian stamp prized for its color varieties. Elemental ink analysis further differentiates the color sources, along with infrared spectroscopy.

Katz, Farley P.

### **Microscopic Analysis of Paper Content of the "Rosette Eagles" - Mystery Mexican Stamps - Confirms Origin and Date**

Technical analysis of paper fibers is used to define a major Mexican fraudulent stamp. The "Rosette Eagles" are differentiated from early Mexican stamp papers and shown to be a fraudulent stamp manufactured from paper composed of pulp and grasses in the same time period of the "Fraudulent Reprints."

Lera, Thomas

### **The Use of X-Ray Fluorescence in Detecting Philatelic Forgeries**

X-ray fluorescence (XRF), a truly non-destructive technique, is used to distinguish elemental composition differences among stamp inks and paper that characterize real versus counterfeit stamps. Examples of the technique applied to the works of several counterfeiters, including the famous Jean De Sperati, are presented. The technique shows a broad range of applications.

Liston, Edward

### **A New Technique for Analyzing the Optical Spectra of Stamp Inks: U.S. Stamp 1861 Case Study**

Reflected color spectra of stamps are analyzed with a new technique that amplifies small differences among stamps. This results in differences more readily seen with the human eye. When applied to one of the favorite classic U.S. stamp color groups, the 3c 1861 Pink, Rose, and the notorious Pigeon Blood, this analysis allows a numerical measure of how “pink” the stamp appears, and can help determine the pigments used to print the stamps.

Lyerla, Tim

### **Shade Verification Using Tonal Histogram Analyses**

The author presents a technique that should have applicability to resolving many stamp color issues. Specifically, he selected two German Offices in Turkey issues for comparison. Computer analysis of digital photographs yielded a non-destructive method for distinguishing between the red orange and dark vermilion shades, and identified a third shade as well.

McKee, Archie

### **An Investigation of the People’s Republic of China “Workers and Soldiers” Definitive Set of 1955-61.**

Paper thickness measurements, X-ray fluorescence, and color spectra comparisons are used to differentiate a People’s Republic of China set of definitive stamps. Traditionally, the set has been stated to have but one distinguishable variety. Basic scientific, technical methods demonstrate both paper varieties and different ink formulations within various denominations.

Mustacich, Robert

### **Computerized Image Analysis Applied to Fingerprinting Stamp Perforations**

An advanced method of “digital imaging analysis” is used to analyze perforations in stamps. The method is able to “fingerprint” the results of specific perforating devices, legitimately used or not. The technique is applied to re-perforated and privately manufactured stamps. Modern philatelic “CSI” in action.

Mustacich, Robert

### **High Resolution Image Differencing of Stamps**

Oftentimes, comparisons between stamps of similar but not identical printings, varying reliefs, re-entries, changing inks and papers, and the like are difficult to compare and differentiate due to varying shrinkage of the stamps that have occurred over time. This advanced image analysis technique promises to correct many of these distortions allowing better quality analysis. Examples of the problems and applications are presented.

Nixon, Ted

### **Expertization of the Third Known Copy of Canada’s Rarest Stamp**

Applied to an example of one of Canada’s rarest stamps, the Laid Paper of the 1868 Large Queen 2c Issue, modern technical tools are used to demonstrate how more scientific and precise information can be used to expertize the rarest of the rare, enabling technical expertizing groups to continue to provide consumers the best knowledge obtainable.

Odenweller, Robert

### **A Retrospective of Technical Research in Philately**

Scientific techniques for philatelic expertization, once very expensive, have come and gone over time. Early pioneers and the techniques they used for stamp expertization that may now be more affordable in today’s environment are reviewed.

Youseffi, K. Joe

### **Application of Advanced Analytic Tools to Persian Philately**

A variety of analytical tools and methods were evaluated at the National Postal Museum applicable to all areas of philately. Nineteen experiments involving Persian philately are briefly reviewed including the results of two of the evaluations that yielded significant new findings.

# Current Research at the NPM

## Early Postal Stationery of the Philippines

Craig Eggleston analyzed Philippines postal stationery to determine the differences between the normal envelopes and the Gonzales type

envelopes. Fourteen envelopes were examined using X-ray fluorescence and the results showed two distinct elemental types. These re-

sults will be published in a future issue of the Philippine Philatelic Journal.



## 2c Admiral of Canada—Different Ink Formulas?

Another study examined 47 plate blocks (there were 160 different plates used) of the Canadian 2c Admiral pro-

duced over an 11+ year period. Using X-ray fluorescence, five distinct ink formulas were identified, and

during WWI the formula contained no zinc.



## Two More Colors Added to Special Handling TCPs

The full complement of trial colors were all thought to be contained in the "set of 13" of the Special Handling issue of 1925. However, VSC6000

and XRF analyses were used to confirm BEP records indicating that two heretofore "duplicates" were, in fact, unique and undiscovered

colors. This research has been published in the May-June 2015 issue of the Collectors Club Philatelist.



## Institute for Analytical Philately, Inc.

PMB 31  
1668 Merriman Road  
Akron, OH 44313 USA



Phone: +1.616.399.9299  
E-mail: [info@AnalyticalPhilately.org](mailto:info@AnalyticalPhilately.org)

**Have a philatelic puzzle?  
Apply for an IAP research grant!  
We can help with equipment availability & analyses.**

**We're on the Web!**  
[www.AnalyticalPhilately.org](http://www.AnalyticalPhilately.org)

## Why Wait?

**You are curious about a particular stamp issue or cover. You would like to know more, but are not sure what questions to ask. Consequently you have no idea what techniques would best address the key questions, and you are concerned about analytical costs—to say nothing of travel expenses.**

- One of our directors can suggest an analytical approach, and even help you craft a grant application.
- You can conduct your work with friendly, free guidance from Tom Lera at the NPM, the world's best equipped philatelic research lab.
- Your analyses will cost nothing, and your travel expenses can be offset with your research grant.
- If you cannot travel, we may be able to provide a bright university sciences major to do the lab work, whom you can pay from your research grant.
- IAP experts will help you evaluate and interpret your data and suggest ideas that will help you write up your results.

**What's not to like about this deal?**

**Just do it!**