

Documenting Scientific Research in Philatelic Literature: A New Perspective

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Analytical Methods in Philately

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An Unusual Requirement

The need to communicate highly technical information and scientific results to laypersons so that they understand the:

- Basic ideas
- Importance
- Potential applications

**There must be a simple
takeaway for the non-scientist!**

Differing Scientific Aptitudes

Consider three levels of scientific aptitude:

- High aptitude for pure science
- Aptitude for technology and engineering
- Low scientific interest and aptitude

How do we integrate these groups?

- Training in the use of forensic devices
- Explaining key concepts to interpret simple results

**This is what will make scientific
philatelic analysis successful!**

The Potential Audience

What is (or should be) the target audience for scientific writing in philately?

- Scientific peers of author?
- Entire stamp collecting community?

Author must be able to:

- Convey the basic ideas
- Convey the importance
- Describe the potential applications

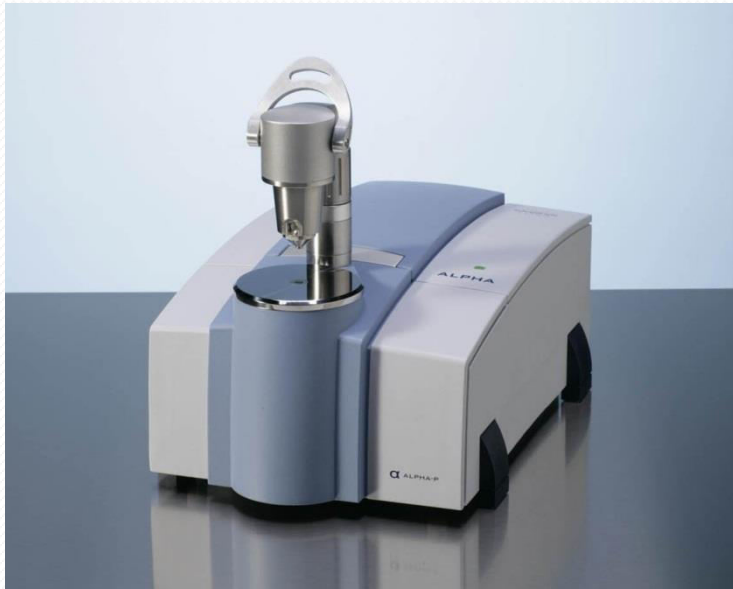
Can There Be “Too Much” Science

- Absolutely!
- We can not risk boring readers
 - Mind-numbing arrays of tables and charts
 - Over-use of scientific vocabulary
- We can not scare potential readers away
 - Intimidating titles
- We can not overload readers
 - Introducing too many concepts simultaneously

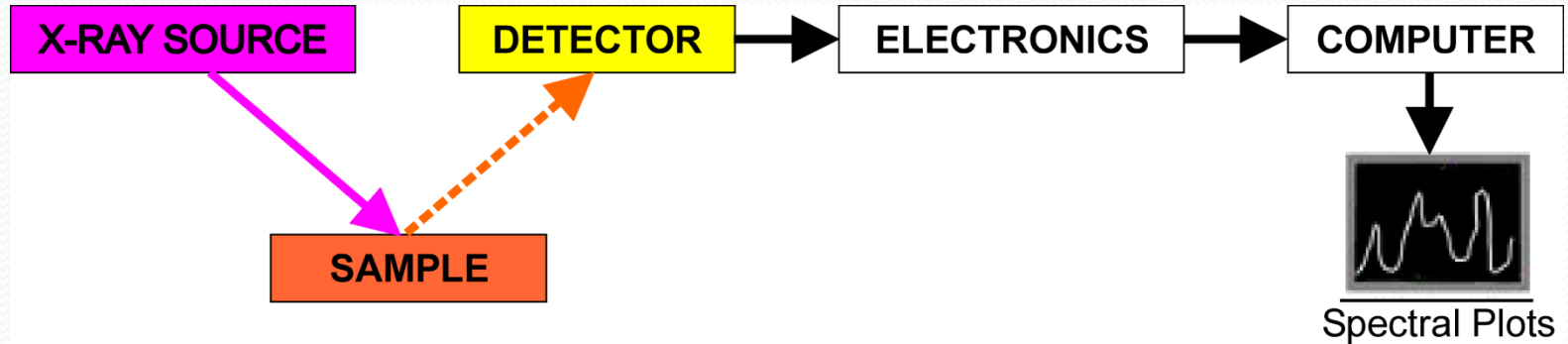
Presenting the Science

- Must be simple to understand
- Must be highly visual
 - Photographs
 - Drawings and sketches
 - Graphs
 - Charts
 - Tables

Photographs



Drawings and Sketches



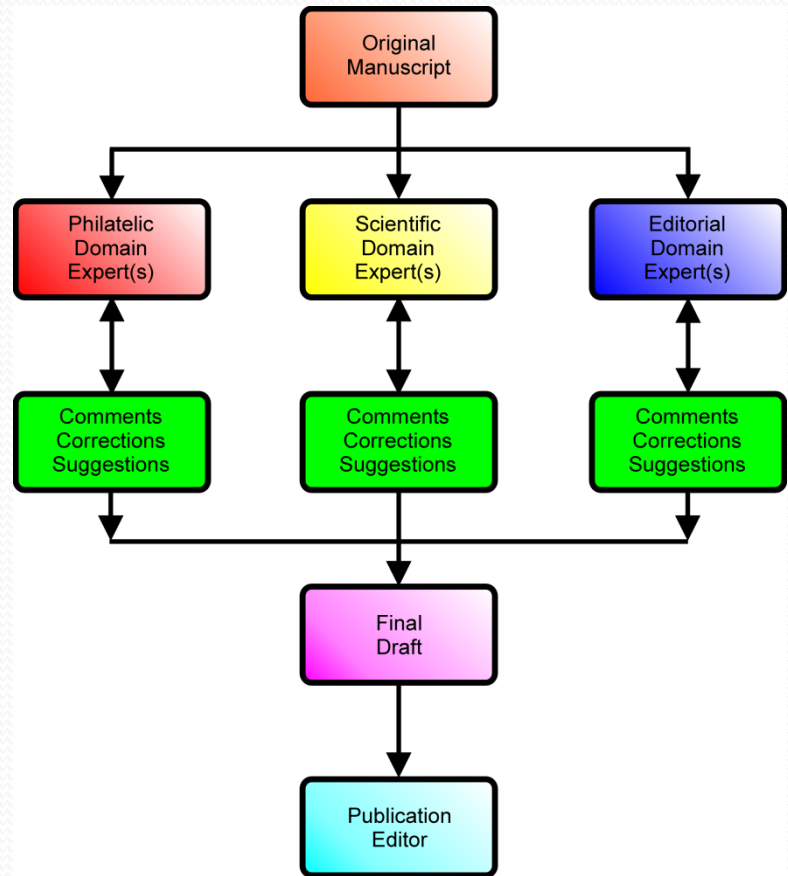
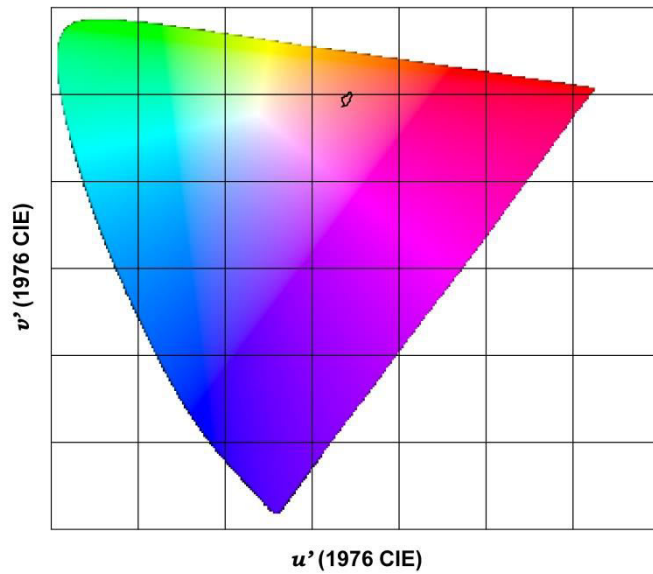
Basic function of x-ray spectrometer

Graphs



Typical spectrograph showing results for two different samples

Charts



Tables

Stamp	Calcium (Ca)	Iron (Fe)	Lead (Pb) -L ₁ ¹	Sulfur (S) (Blue Filter)	Other Elements
Sample A, Pos. 59L1 Early Yellowish Orange Brown Earliest Color, 1851	54,000	96,000	99,000	4,400	4,000 Silicon (Si)
Sample B, Pos. 7R1 Early Orange Brown First two weeks of Production, 1851	170,000	360,000	332,000	6,500	14,000 Silicon (Si)
Sample C, Pos. 92R1i Orange Brown 28 Nov 1851	50,000	101,000	80,000	4,500	6,500 Silicon (Si)
Sample D, Pos. 91R2 Early Orange Brown Early 1852	88,000	310,000	152,000	6,500	8,000 Barium (Ba)
1. Results from the L ₁ energy level.					

Source: Allen and Lera, "The US 1851 3¢ Stamp – Color, Chemistry and Changes,"
First International Symposium on Analytical Methods in Philately.

Translating Technical Results

- Problems:
 - Always wanting to display our brilliance
 - Writing for the other “two” philatelists who may understand
 - Not “selling” methods over specifics
 - Who really cares about Slovenian postage due stamps???

Refereeing Articles

- Thought to be impractical
 - Odenweller – *CCP*

“On occasion we have been asked if it would be a good idea to “referee” the articles that appear in the way they are done for scholarly journals. Usually this is not practical, either due to time constraints for finding the appropriate referee, since the author is likely to be one of the most likely to know the subject best..”
- Multidisciplinary outside reviews
 - IAP provides a natural resource for scientific reviewers
 - Also requires subject domain experts
- Use outside readers BEFORE submission

Best Publication Venues

- *Collectors Club Philatelist* (900+)
- *London Philatelist* (2100+)
- *American Philatelist* (32,000+)
- *The Chronicle* (1200+)
- *United States Specialist* (1800+)
- *Confederate Philatelist* (700+)
- Other specialty journals
- Don't forget scientific journals

What do you think??