



# Beware the Certainties of Science

Keynote address by

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## Philatelic Expertisers v Forensic Scientists

We all make mistakes - but there are a surprising number of divergences of opinion on authenticity as between philatelic experts and scientific (non-philatelist) experts

The question I ask is:-

***“Why do we, philatelic expertisers, so often come to different conclusions to the non-philatelist scientists as to whether an item is genuine or not?”***

This matters – it is a question of credibility

I would like to illustrate with some examples and ask

***“What do we learn from these examples?”***

£1 Machin - issued 5 March 1969

“Error of colour” - Indigo shade - SG Spec. UC4 (2)

“Error of colour” - Indigo shade



Normal - Bluish black shade



This shade is supported by a forensic analysis of the ink and confirmation from the printers that it was caused by the inadequate cleaning of the ink vats after the printing of the blue 10s value, causing contamination of the black ink used for the £1 value

**LOOKING AT THE WRONG THING**

## “Error of colour” - Indigo shade

“Error of colour” - Indigo shade



Normal - Bluish black shade



It is not an error of colour

The surface of the stamp has been contaminated from a chemical reaction between the ink / paper and the blue plastic folders in which the stamps were stored

The stamp shows as Indigo to the human eye

This is an occasion where we know this is a fake

The RPSL / BPA Expert committees know where and how the “shade” was found

# Western Australia - 2d error in colour of 6d



De La Rue printing  
Western Australia - Error of colour  
2d value in the colour of the 6d value



Courtesy of  
Cavendish Philatelic Auctions Ltd

**TECHNICAL EQUIPMENT CAN MISLEAD**

# Examination using VSC 6000



UV light 312nm

Courtesy of  
Cavendish  
Philatelic  
Auctions Ltd



Western Australia - Error of colour  
No sign of tampering shows under UV light

# Examination using VSC 6000



RG9 filter



Courtesy of  
Cavendish  
Philatelic  
Auctions Ltd

Western Australia - Error of colour  
Variety has been faked from a 6d value by over-painting

## India - 1854 4as blue & red Missing Queen's head

Summary of conclusions from forensic (non-philatelist) analyst:-

- Normal stamp tested, which established that the blue head contained Prussian Blue
- Tests on the patient could find no trace of Prussian Blue
- There were no traces of disturbance of the surface paper fibres to indicate that the design had been erased
- **Conclusion of the forensic analyst:-**
  - This is a genuine printing variety with missing head



Normal 4as blue and red

**LACK OF NEGATIVE EVIDENCE DOES NOT NECESSARILY PROVE A POSITIVE**



# India - 1854 4as blue & red - Missing Queen's head



# India - 1854 4as blue & red Missing Queen's head

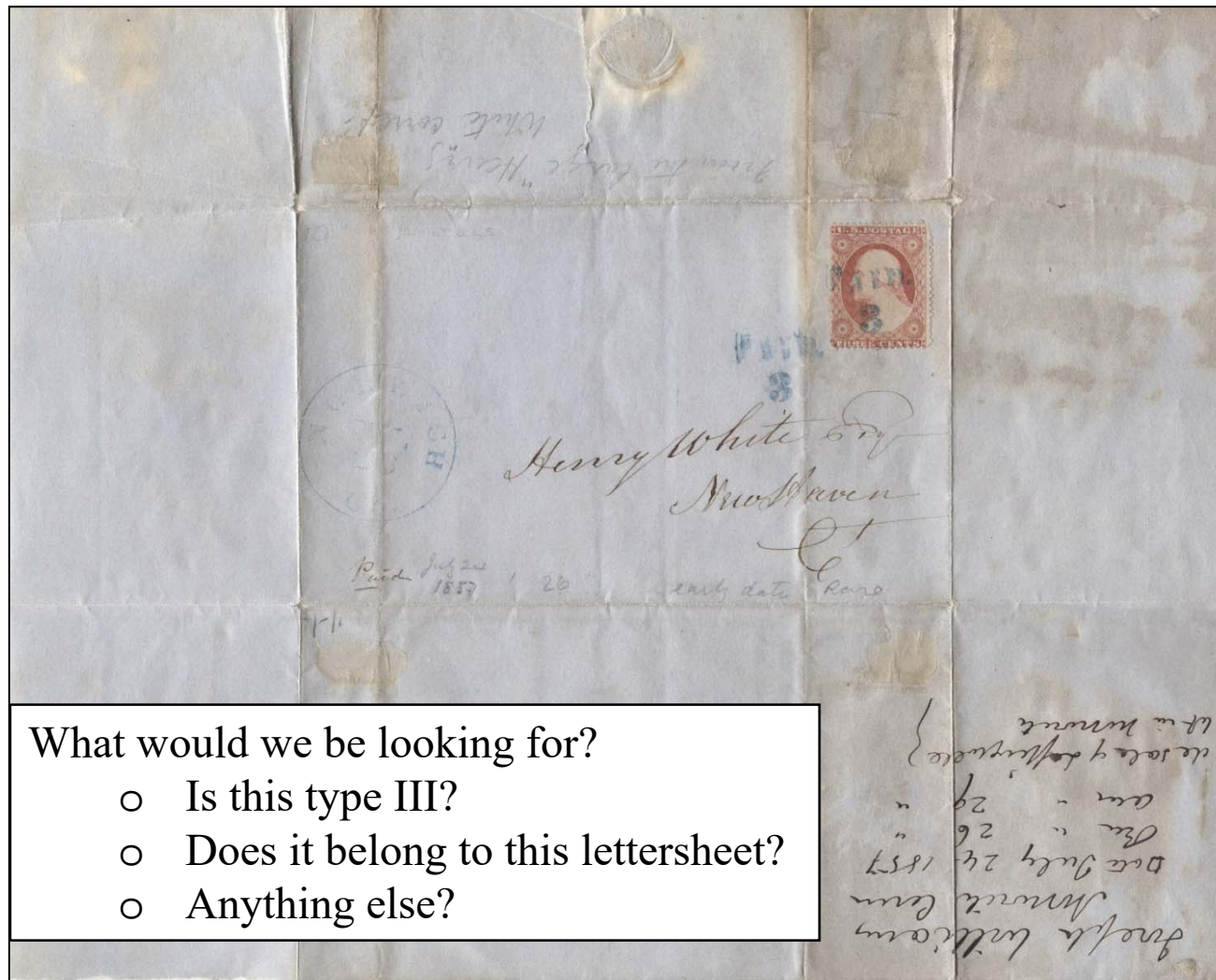
## Summary of conclusions from Expert Committee analysis:-

- We did agree on one thing. We could find no trace of disturbance of the surface paper fibres from removal of the design

## **However, we were concerned that:-**

- The obliteration was weak – a signal that all may not be right and the stamp may have been subjected to some sort of bleaching
- Even more astonishing was that the profile of the Queen's face and the shape of the tiara were clearly visible as a faint "shadow" in the centre of the stamp. These features were clearly visible in both daylight and under UV and other wavelengths
- **Conclusion of the Committee:-**
  - The missing Queen's head is a faked variety
  - The blue colour has been faded / bleached out affecting also the obliteration

# USA - earliest known date of 1857 3c Type III

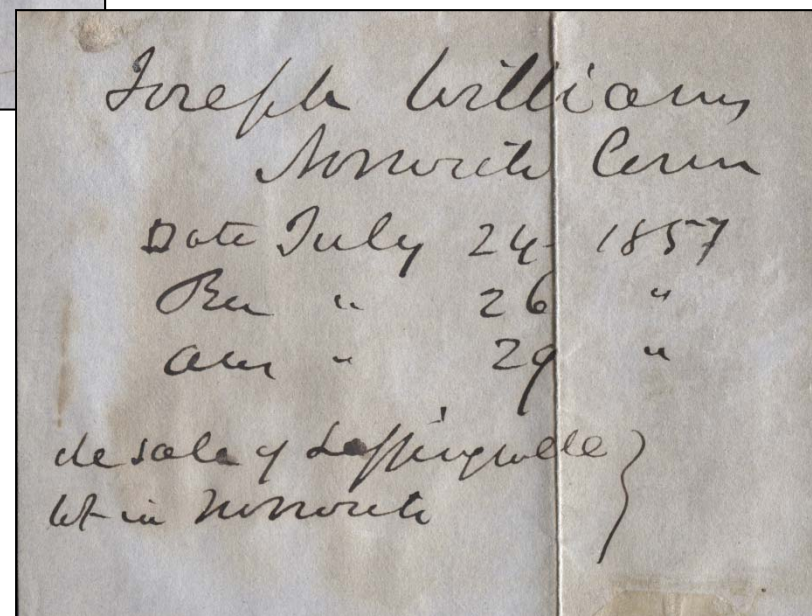


**THE FAKER CAN BE VERY CREATIVE**

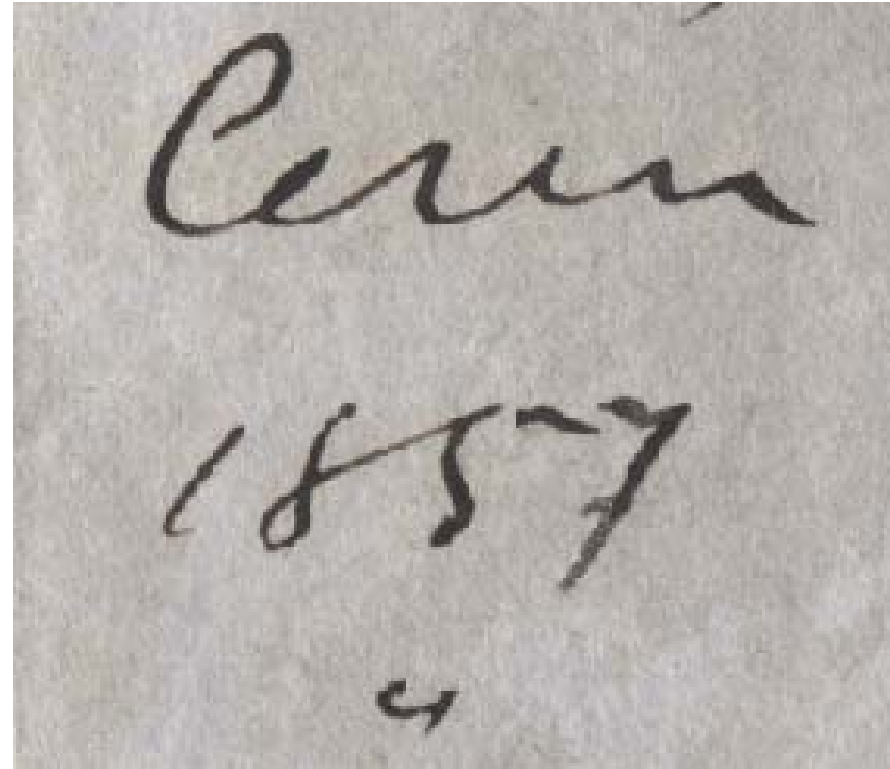
## USA – earliest known date of 3c Type III



- Stamp is clearly type III (plate 9, 12-28)
- Ink of blue obliteration on stamp and on lettersheet seem a good match
- Manuscript date reads July 24 1857
- BUT earliest documented date of use of type III is 14 September 1857



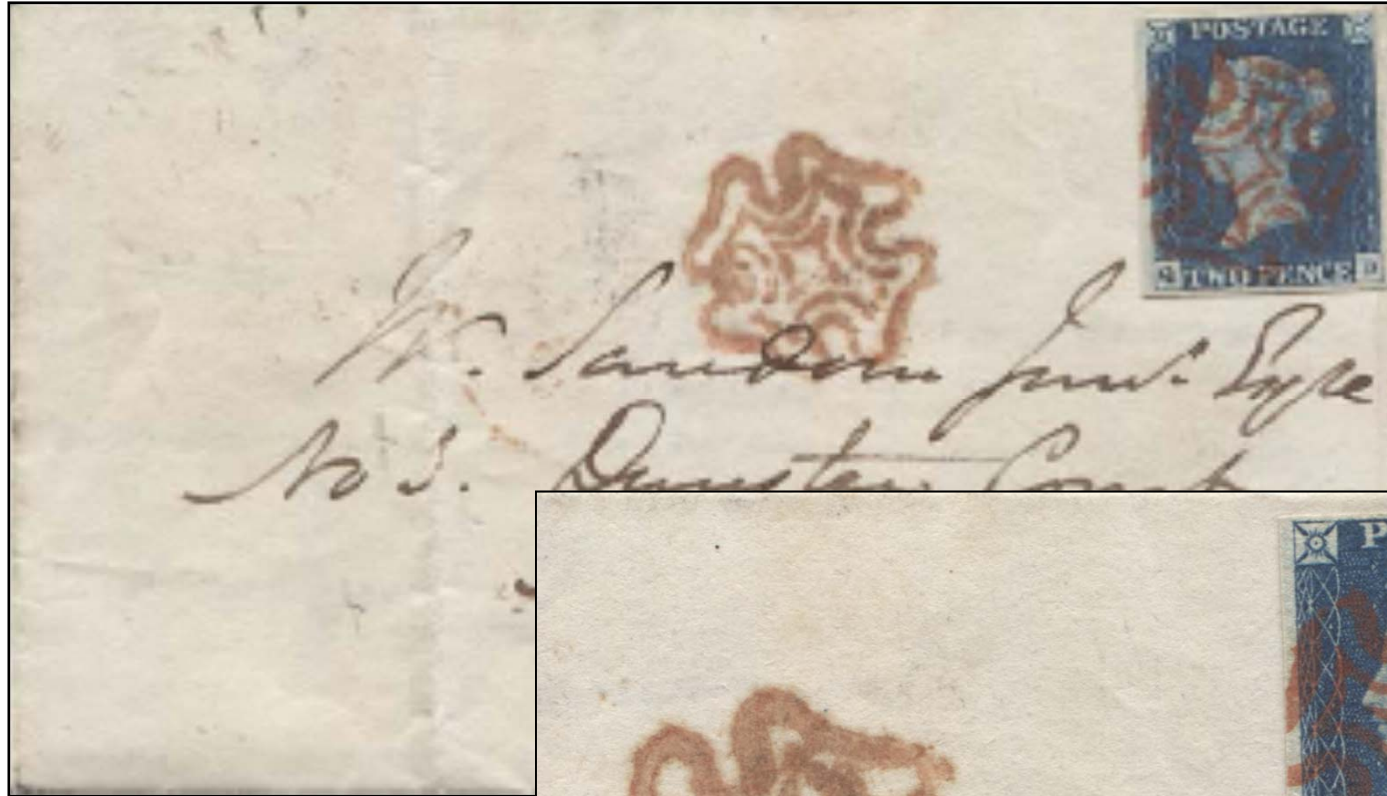
## USA – earliest known date of 3c Type III



Closer examination of the manuscript date identifies that “1851” has been changed to “1857”

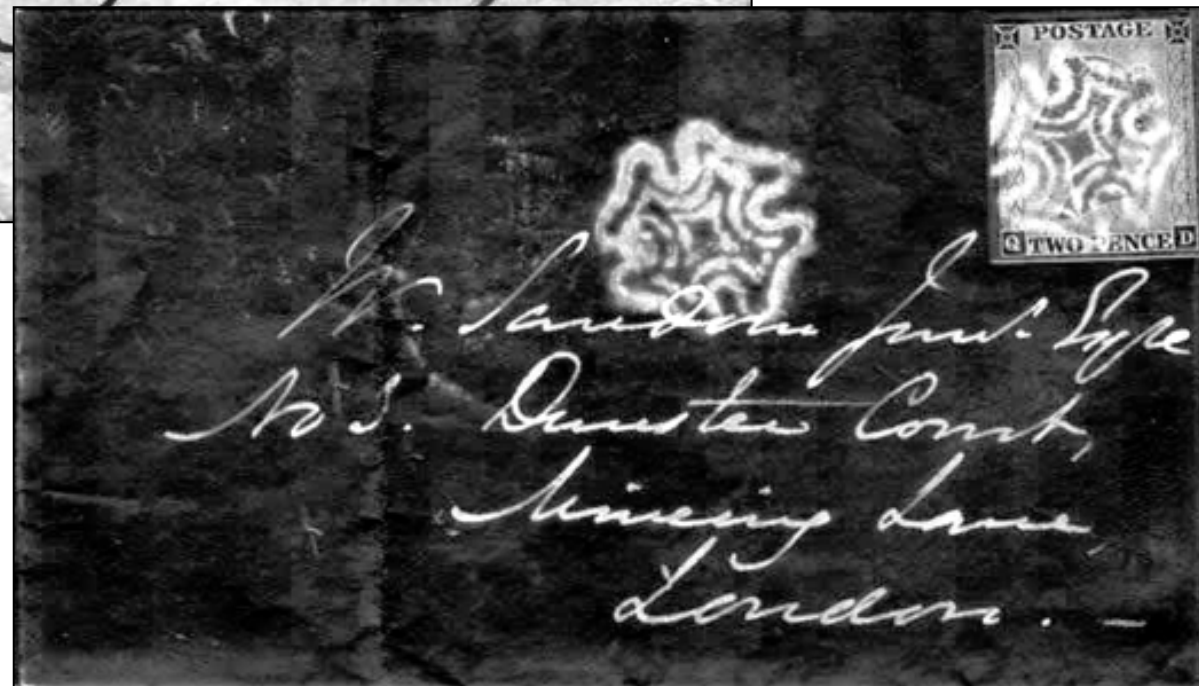
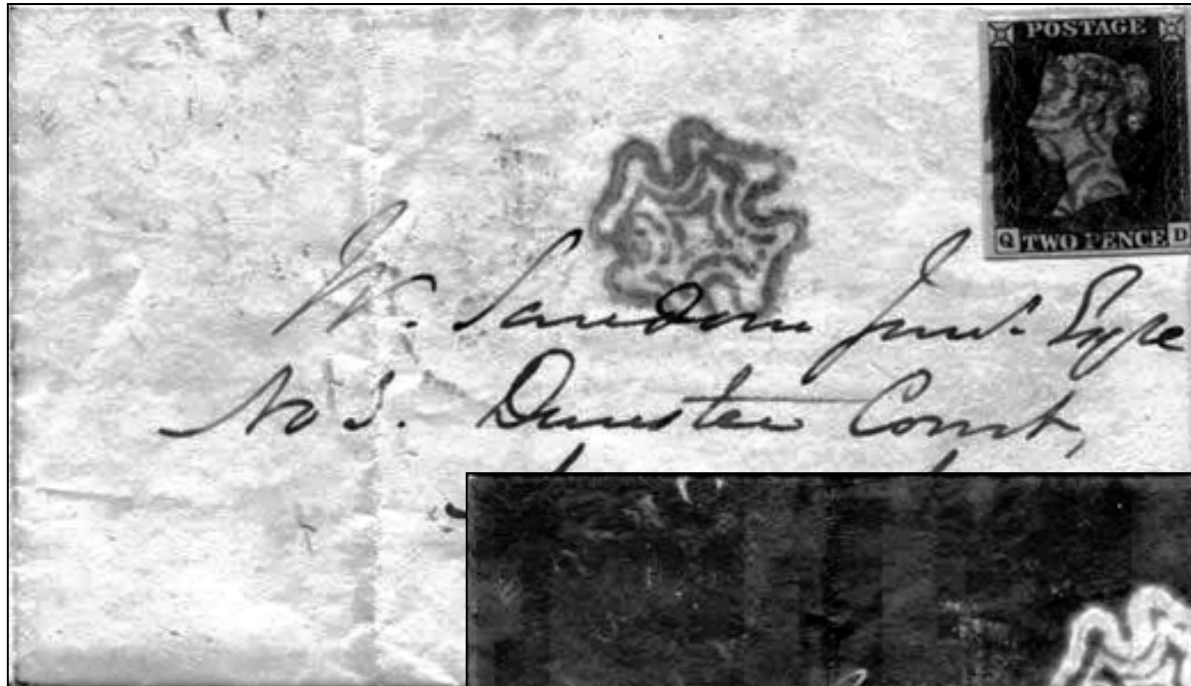
**Conclusion**:- The manuscript year date has been fraudulently manipulated and the 3c stamp type III did not originate on this lettersheet; the tie from the blue obliteration has been faked

## A fine 2d Blue cover



**CERTAIN TESTS MAY NOT BE CONCLUSIVE**

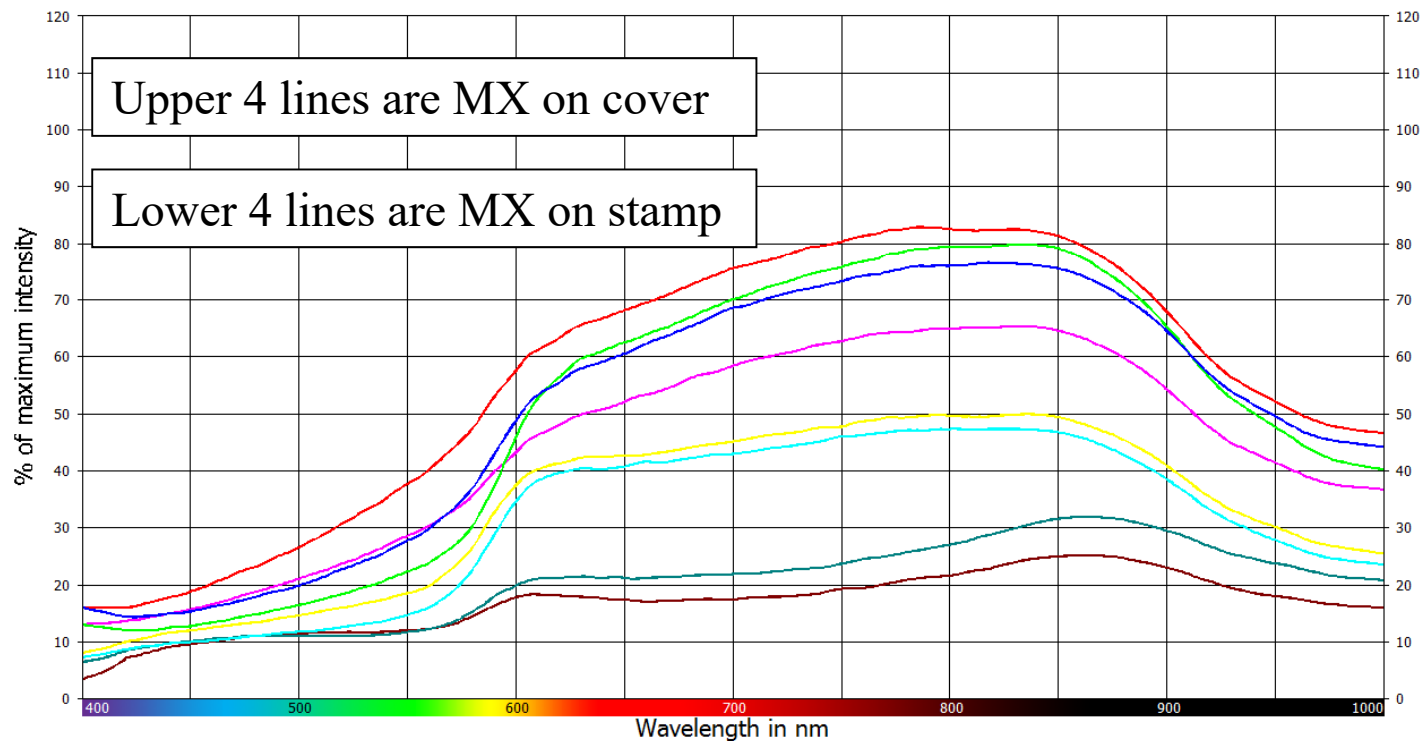
## A fine 2d Blue cover



Effects using  
Retro-reveal

# A fine 2d Blue cover

1	Ref	MX on cover_Position 1	11	
2	Ref	MX on cover_Position 2	12	
3	Ref	MX on cover_Position 3	13	
4	Ref	MX on cover_Position 4_contaminated	14	
5	Ref	2D stamp left margin_position 1	15	
6	Ref	Ditto_position 2	16	
7	Ref	Ditto_Position 3	17	
8	Ref	MX on 2D stamp_on Crown_Position 4	18	
9			19	
10			20	

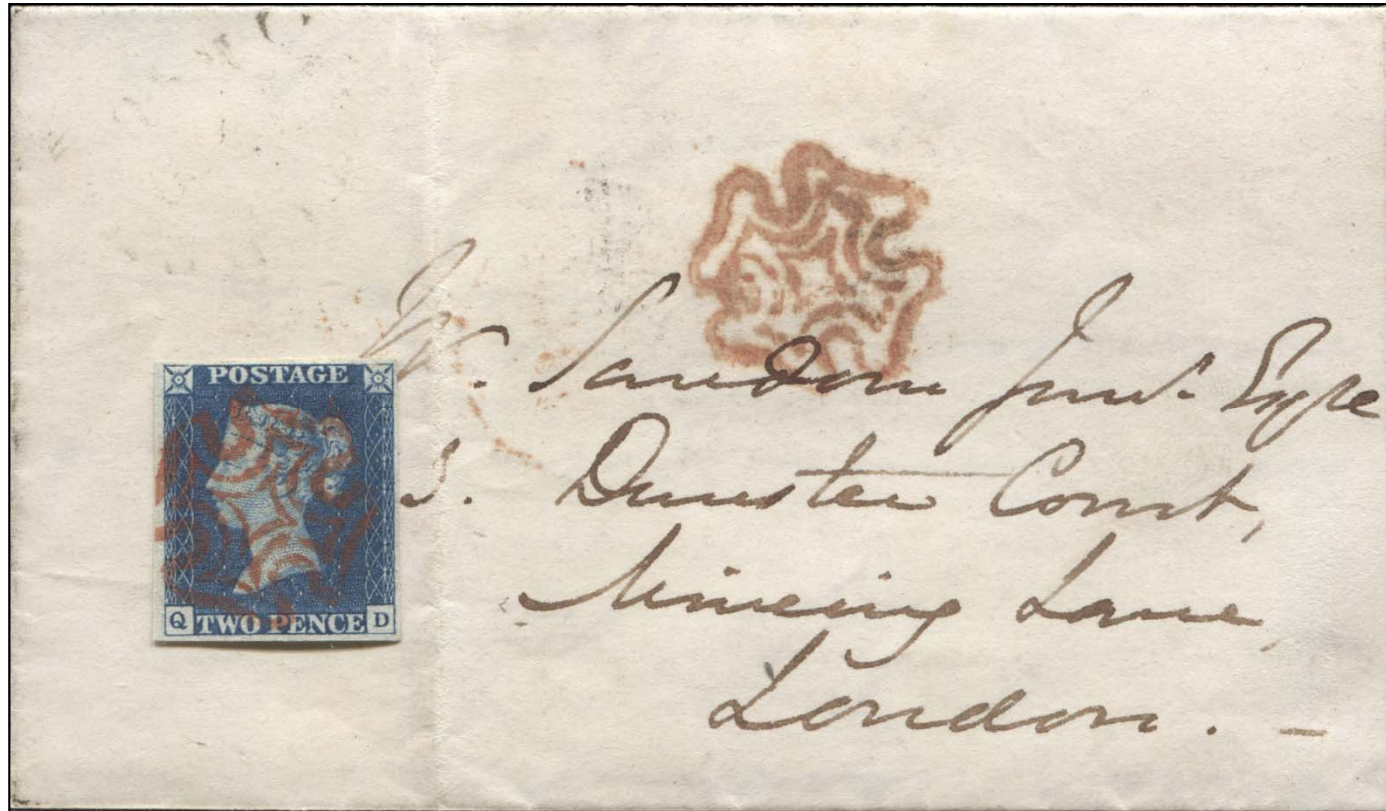


Time: 10:05:30 Date: 21/12/2016 Folder: T:\VSC (current)\2016\Reference\Chris Harman\

## Ink reflectance traces using VSC 6000



## A fine 2d Blue cover – or maybe not



# Hawaiian Missionary 1852 H. I. & U. S. Postage 13 cents

Genuine  
ex Tapling  
Collection



Scott Forgery  
ex RPSL  
Collection

The Grinnell Forgeries of the Hawaiian Missionary stamps - comparisons of:-

- The genuine Missionary stamps in the Tapling Collection (The British Library)
- The Grinnell forgeries
- Other forgeries in the forgery collection of the RPSL Expert Committee

Under the VSC 6000, the closest ink match to the genuine stamp was the so-called Scott forgery of circa 1870

**MISLEADING RESULTS**



# Concluding Comments



Lest you think otherwise, let me affirm my belief in the application of science to philately:-

- It is extremely valuable in identifying fakes and forgeries
- It is useful today and will become more useful as more aspects are examined and recorded. It offers:-
  - variety of light sources
  - chemical analysis of inks
  - overlaying of designs in order to compare
- Technology can often confirm the status of an item when normal methods struggle
- Technology can produce a template for use when considering other examples of the same stamp – a repeatable analysis



# Concluding Comments



However, it is not the “silver bullet”:-

- It does seem that the non-philatelist may not acknowledge the boundaries of their methodology and their knowledge. Why, we wonder:-
  - Dismissive – stamp collecting is not serious therefore can be treated thus
  - Hubris – belief in having asked all the right questions
  - Infallibility – conclusion that the inability to find something wrong means that the item must be right
- It worries us that the scientist is sometimes prepared to ignore own scientific findings in coming to a conclusion
- It seems the scientist often seems too eager to reach a judgement beyond their area of expertise rather than just recording the results



# Concluding Comments



Thus:-

- We conclude that there are two parallel and equally important threads to understanding this subject
  - there is philatelic knowledge
  - and there is scientific knowledge
- Both are inter-dependent
- Both are important
- Each complements the other

We will see a number of examples of this over the next two days

*Solving Philately's Puzzles*



*through Science<sup>SM</sup>*

Beware  
the Certainties of Science