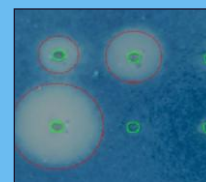
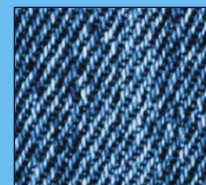


Introduction to VideometerLab 2 for the non-destructive analysis of historical artefacts



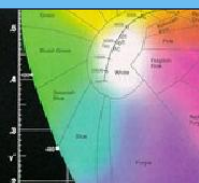
Adapted from a presentation by Dr. Michael Lerche Nielsen,
Institute for Name Research and
Dr. Jens Michael Carstensen, Videometer A/S

For more information contact:

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T: +44 (0)870 991 4044 F: +44 (0)870 135 2488 E: info@analytik.co.uk www.analytik.co.uk



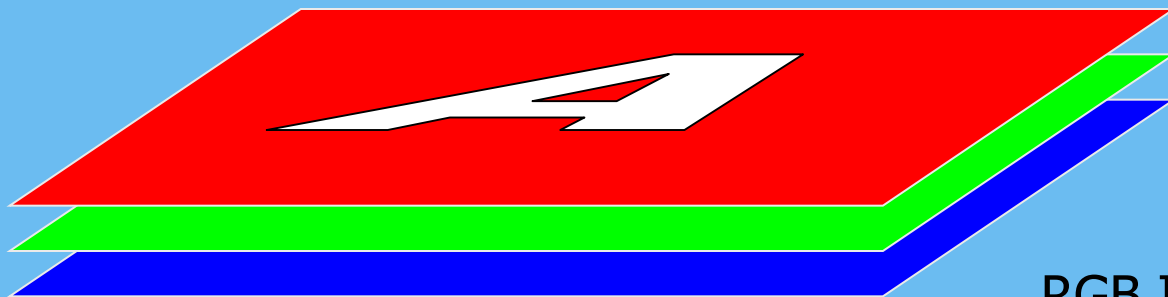
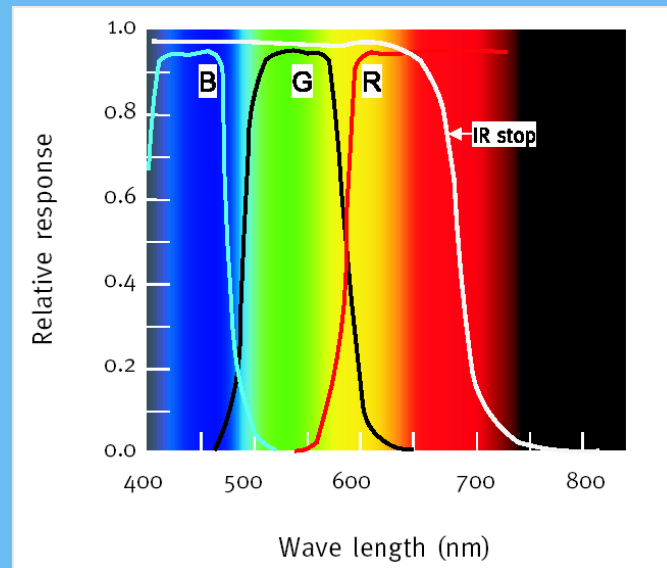
Safe analysis

- It is critical that any analysis techniques used on historical artefacts are entirely non-destructive
- Multispectral imaging can be used safely, a number of historical texts have been investigated using the VideometerLab
- Some images from the analysis are shown in this presentation



Traditional Color Imaging

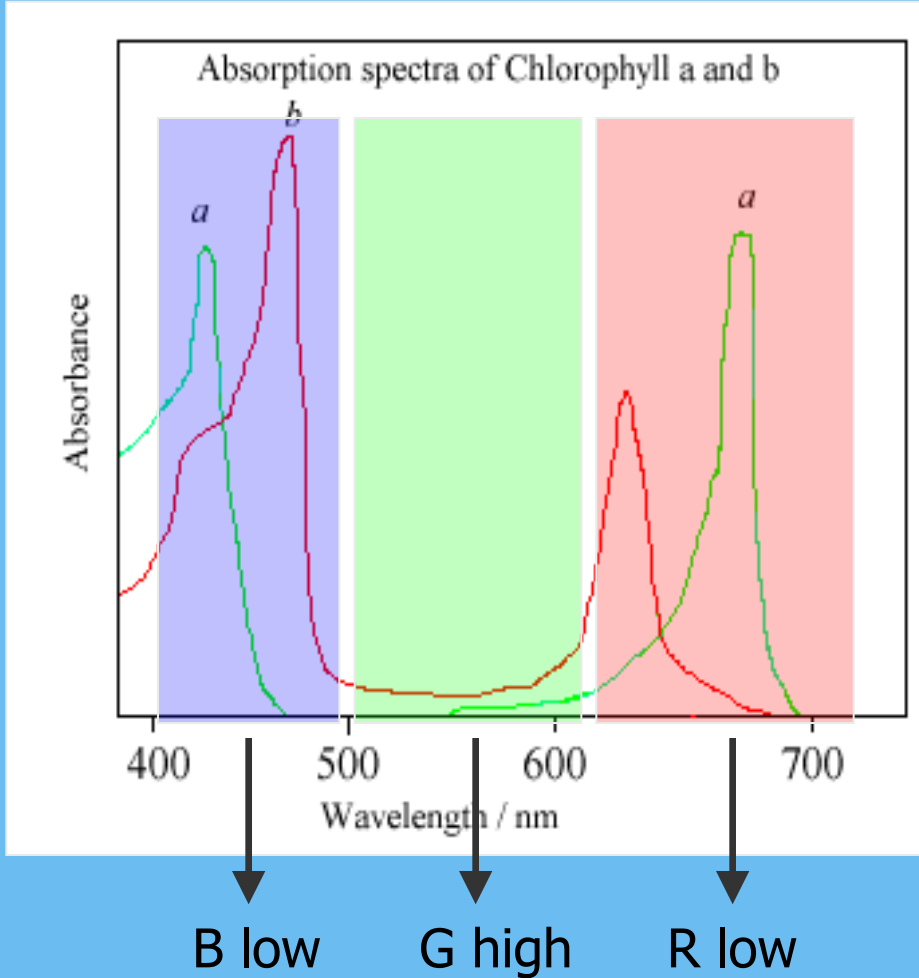
Uses only 3 broadband filters for **R**ed, **G**reen and **B**lue



RGB Image



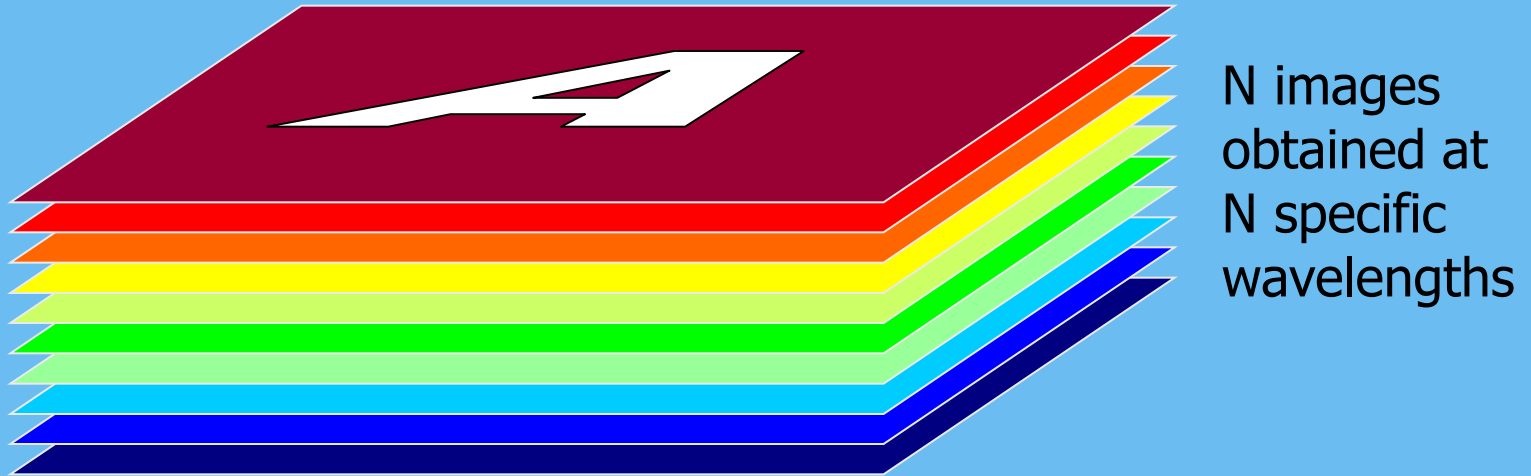
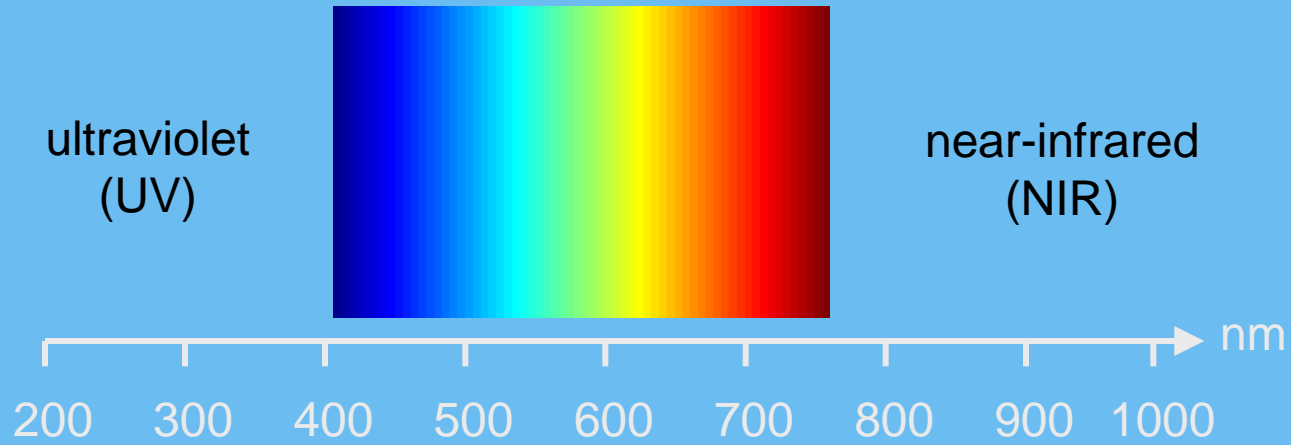
Traditional Color Imaging



With limited spectral resolution
Chlorophyll a and b
give almost the same
RGB signals, and are
difficult to distinguish

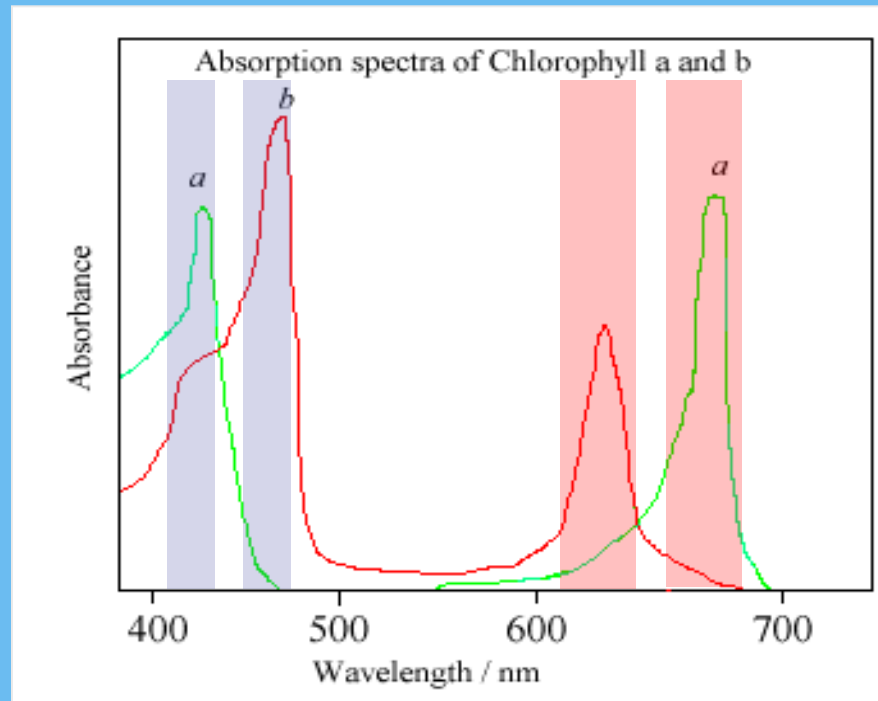


Multispectral Imaging



Multispectral Imaging

Using specific wavelengths for imaging, chlorophyll a and b can easily be distinguished

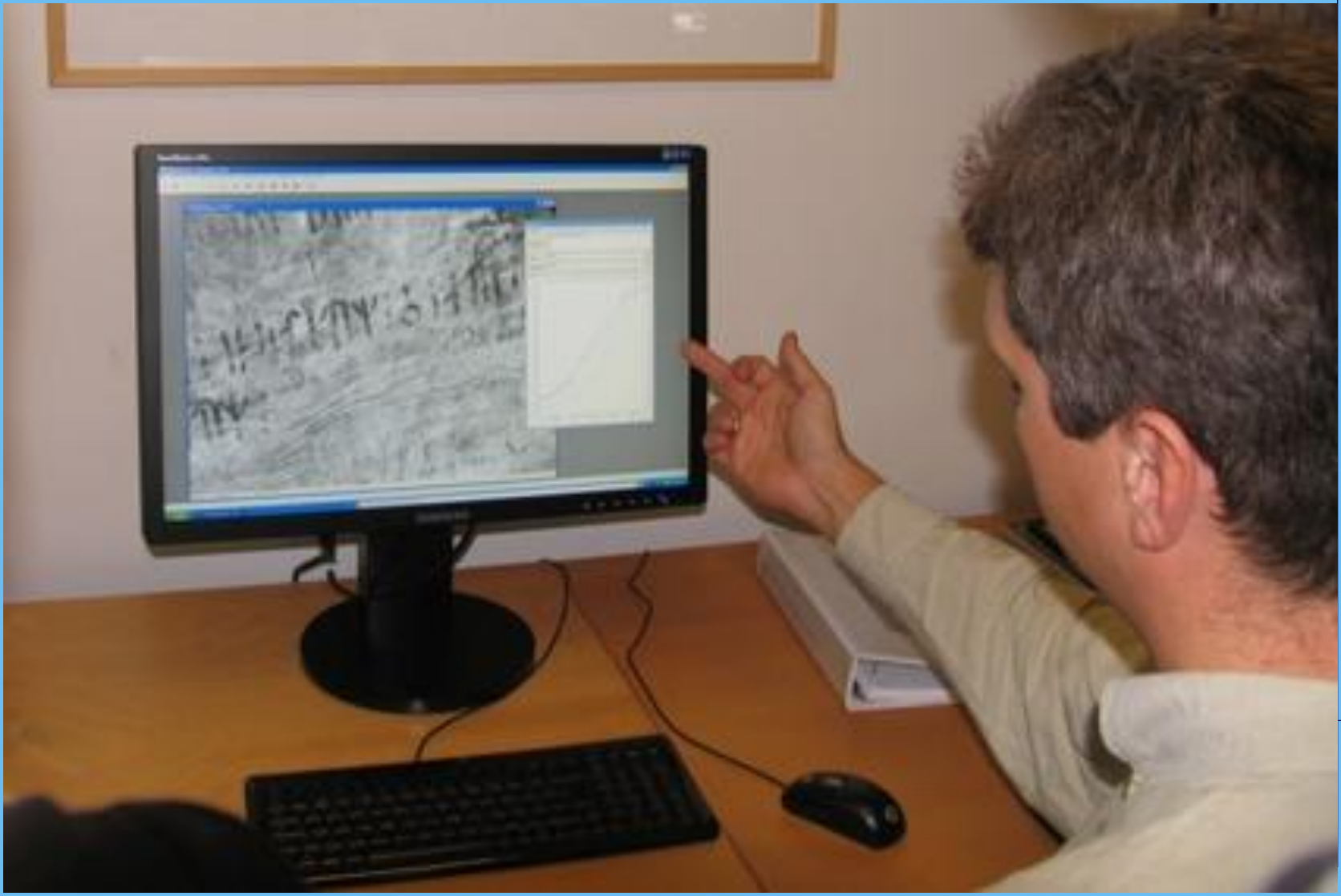


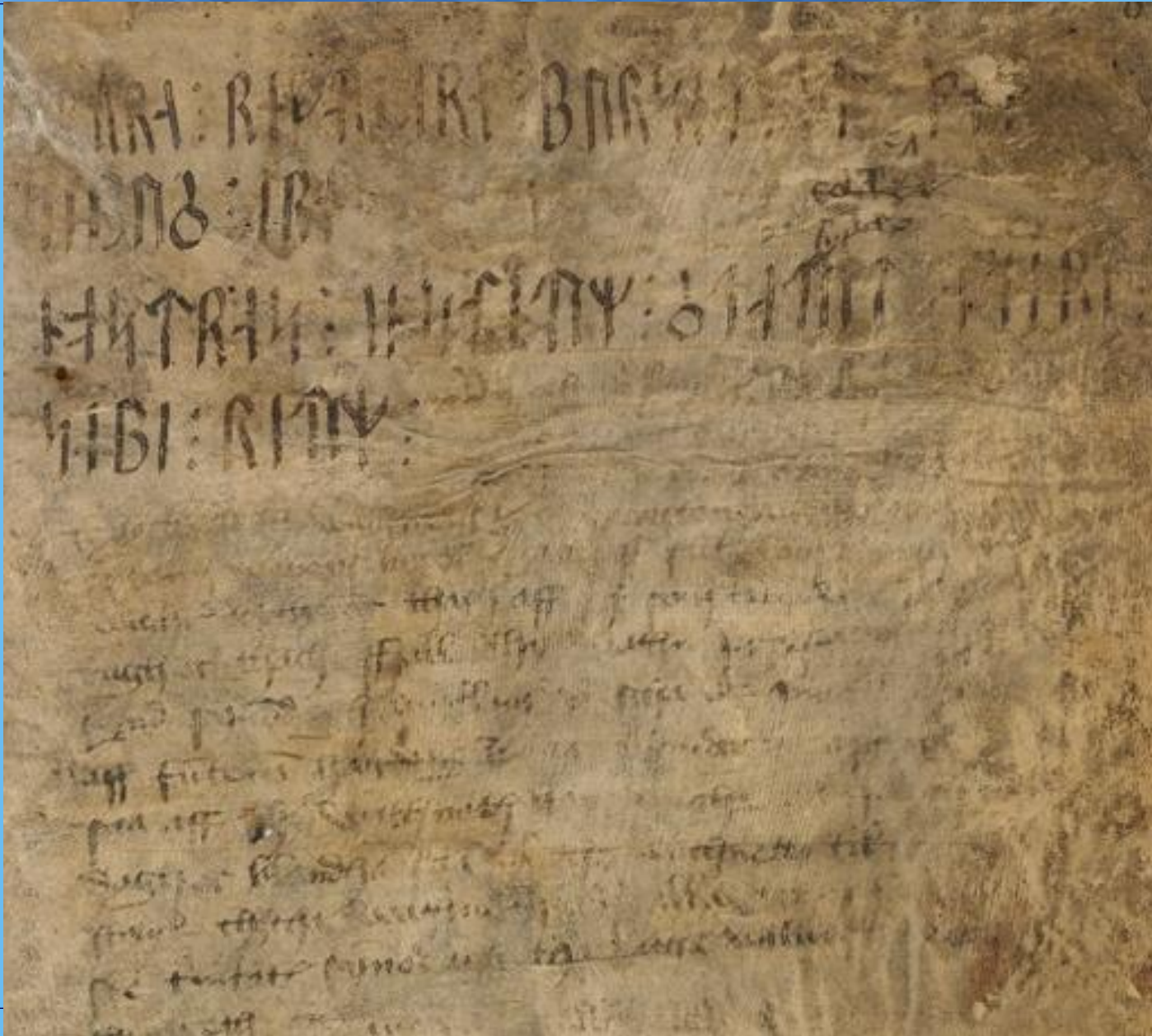
Chlorophyll a	low	high	high	low
Chlorophyll b	high	low	low	high

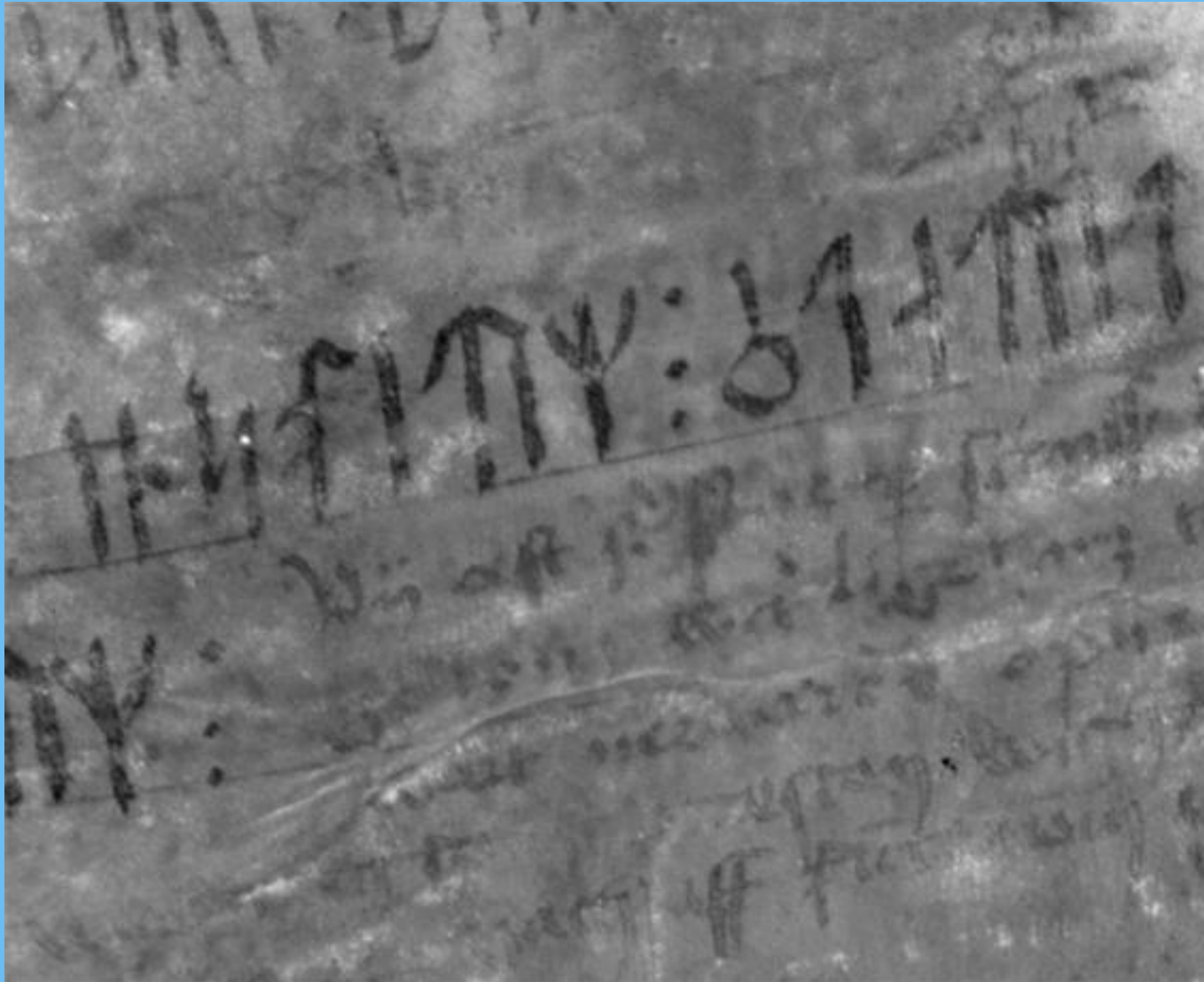


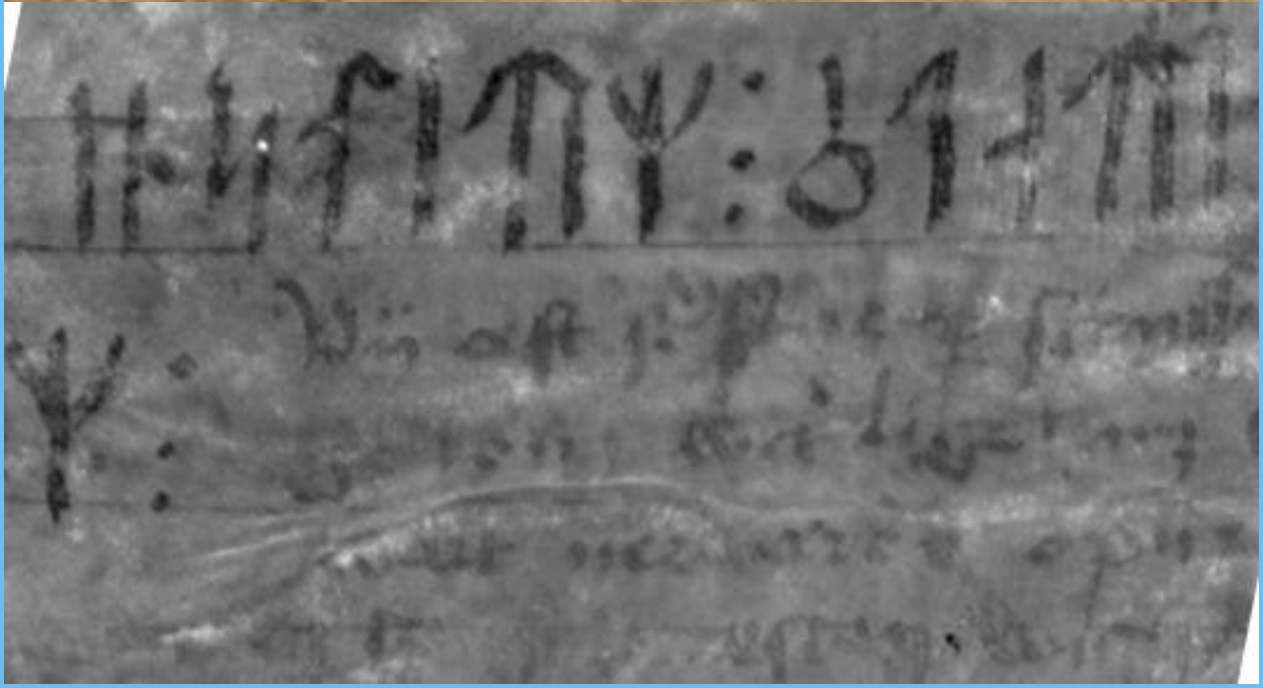
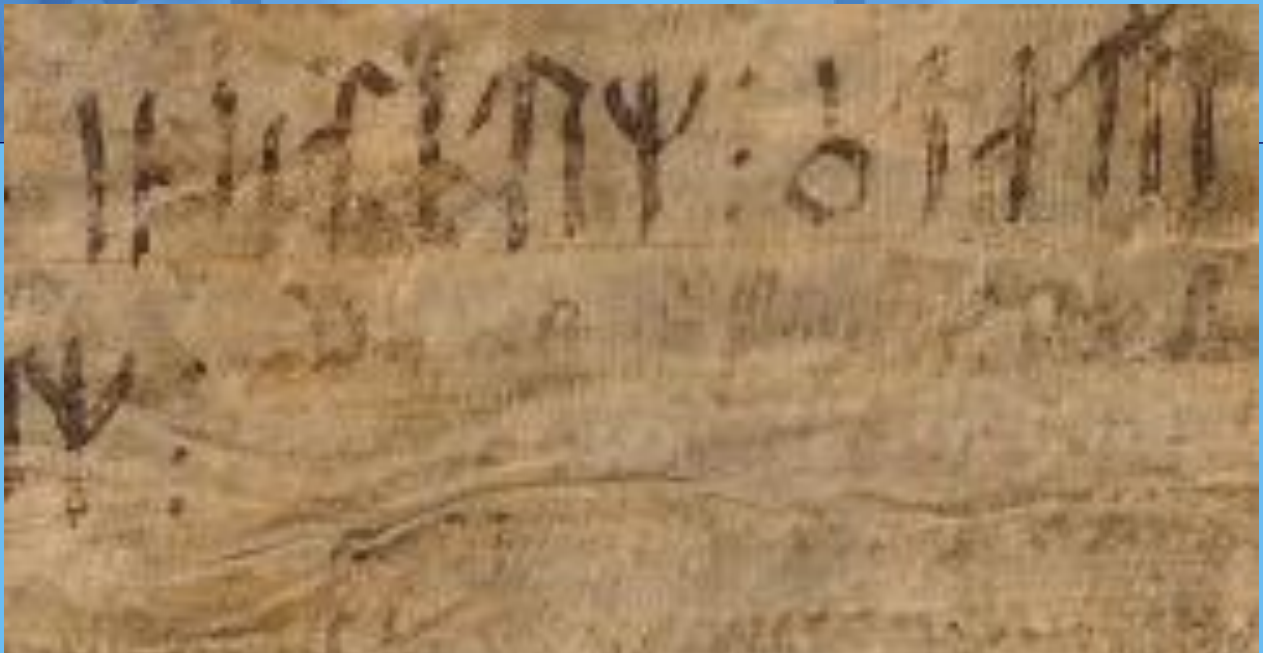
Multispectral imaging with VideometerLab









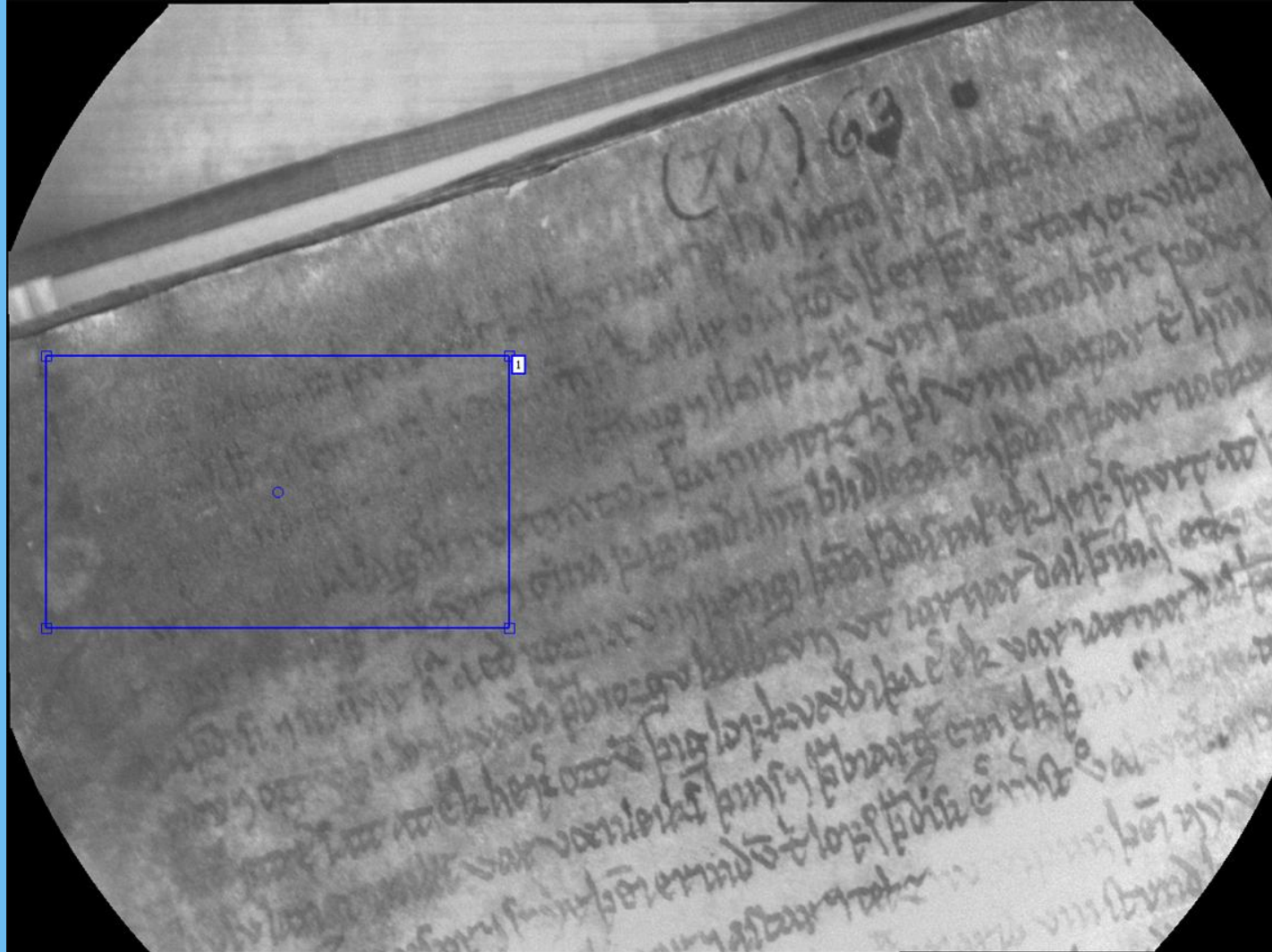




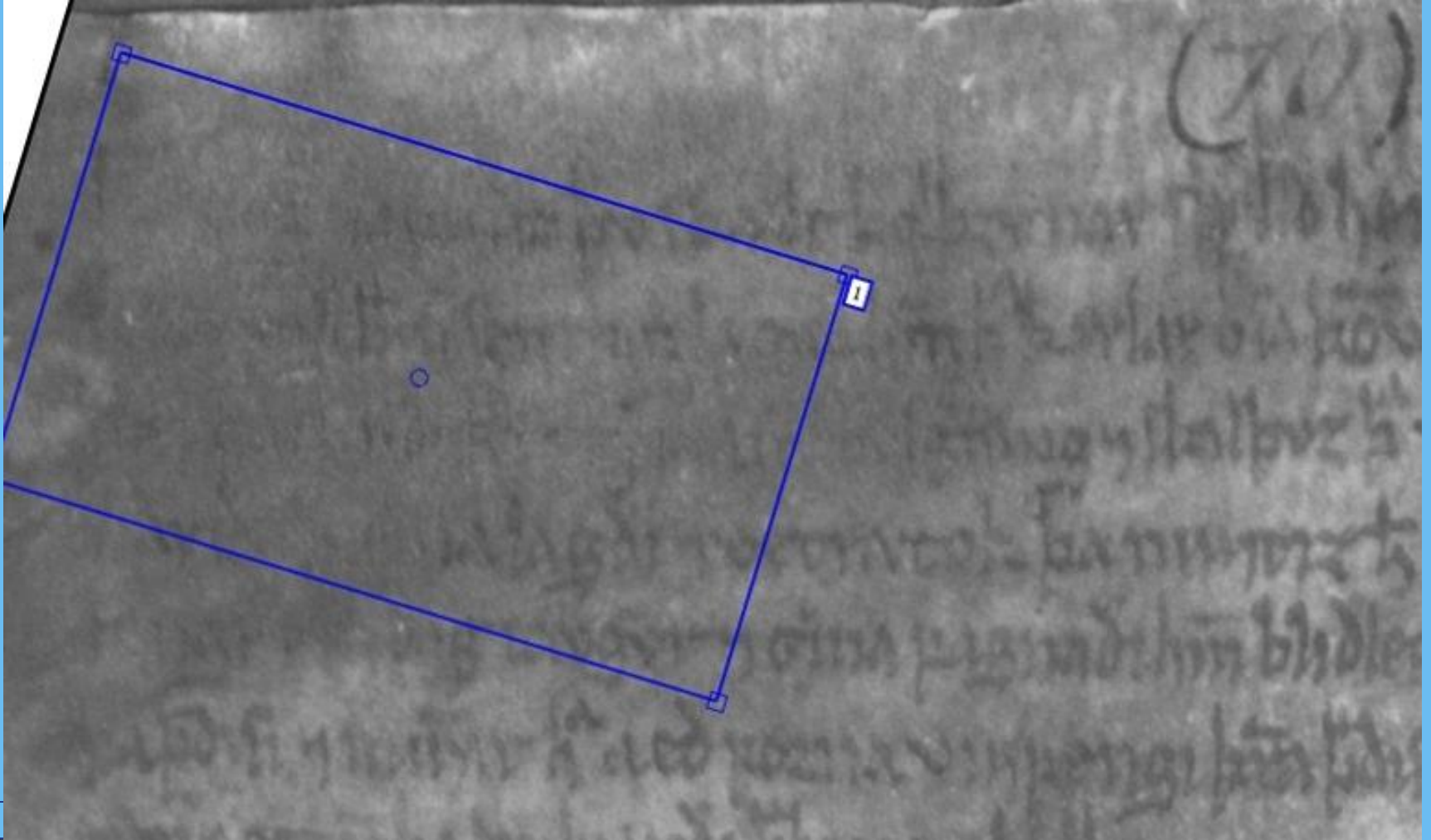
Parchment AM 544 4to, Hauksbók



Multispectral imaging of Hauksbók



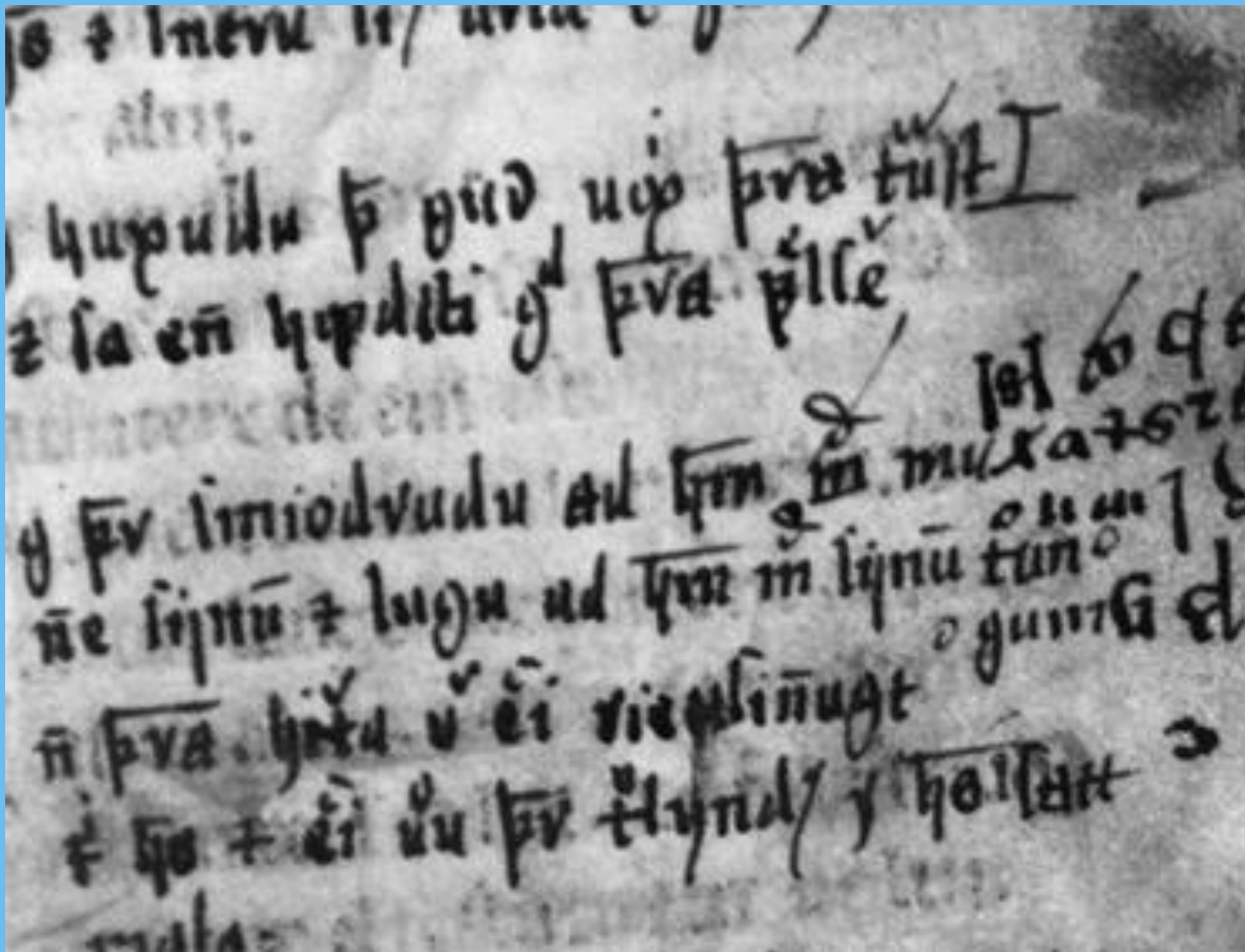
Detail of the multispectral image



AM 618 4to under the lamp



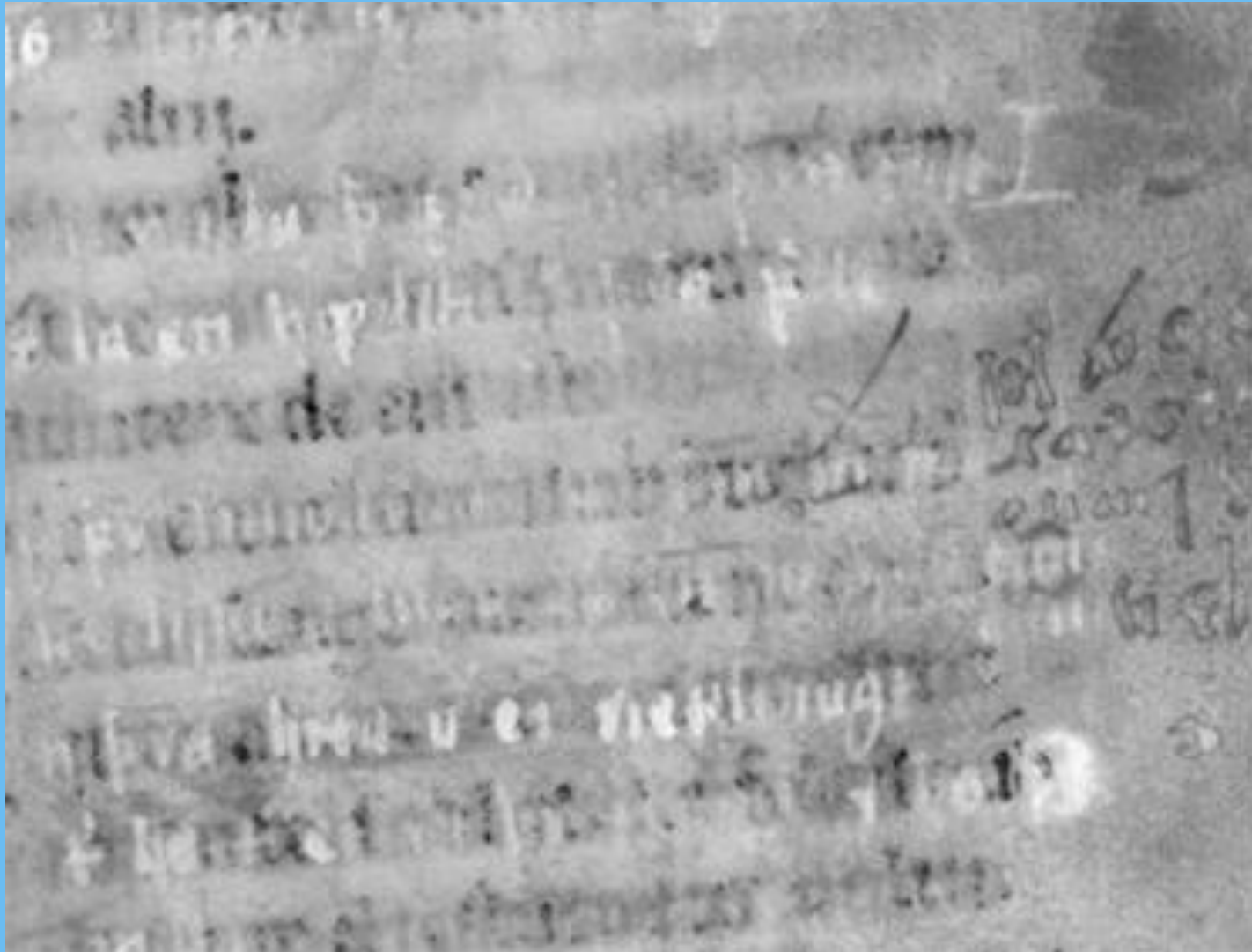
palimpsest AM 618 4to, text 1586

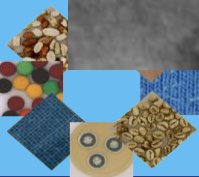


is + Inevu 11/ unia 0 y
alry.
hupudu þ þud uop þva tult I
z la en hupditi y þva þlle
y þv imiodvudu ad þm m. muratorz
ne lymu + lugu ad þm m. lymu tun
n þva heta v ei viedlinugt
þ þo + ei uu þv thynd / holant



AM 618 4to, removal of the ink from 1586 with multispectral imaging





The Elder Westrogothic Law

National Library of Sweden



Page 1 front, RGB



Page 1 front, spectrally enhanced



The Elder Westrogothic Law

National Library of Sweden



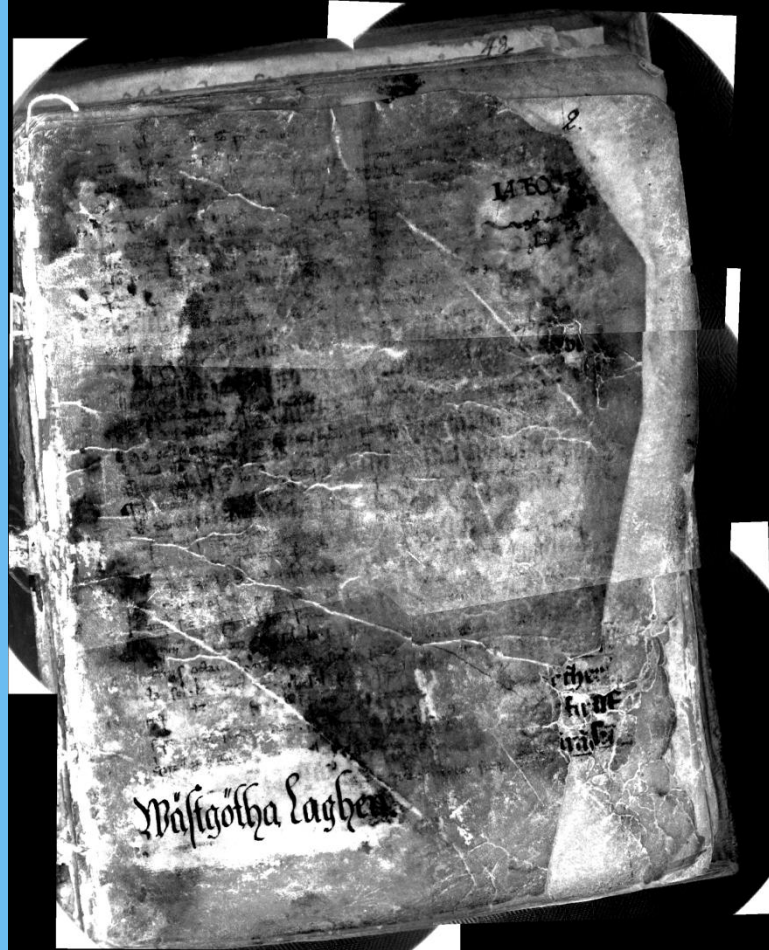
Page 1 front, RGB



Page 1 front, spectrally enhanced



Stitching one spectral component



‘During the work with [the Elder Westrogothic Law \(Äldre Västgötalagen\)](#) we used VideometerLab to make spectral imaging and analysis of four partially or largely unreadable pages. During this process we obtained valuable new information and VideometerLab proved to be a highly useful and efficient tool. Thanks to the Videometer images, we now know a lot more about the author, than we knew before’.

Per-Axel Wiktorsson

Professor emeritus in Swedish language, Örebro University



- There are many other applications of spectral imaging using VideometerLab 2
- For more information contact Analytik (UK and Ireland distributor)

www.analytik.co.uk

