LUXEMBOURG CENTRE FOR CONTEMPORARY AND DIGITAL HISTORY

Structure and Organisation - PhD skills training on Digital Source Criticism for Doctoral Training Unit Digital History and Hermeneutics

0. Preparation before the workshop

1. **Reading literature on *Digital Source Criticism* and writing an abstract**

- Everyone is expected to read the article by Andreas Fickers and the article by Trevor Owens that is uploaded in Google Drive.
- In addition we want you to **choose a third article to read**. In order to make sure that the literature list is evenly covered, you are expected to mark your choice by adding your name in the google table.
- We strife to make sure that there is a spread of languages, so if you master German or French, please choose an article in one of these languages.
- In the last column you are expected to write an abstract of the article of your choice in the language that you master best in 300 words.
- An abstract of the mandatory articles will be provided as an example.
- If you want, you can team up with someone you know and discuss the literature together, but you would be expected to review two articles together.
- The preparatory crowdsourced review of the literature is expected to yield an overview of abstracts, as a basis for the first assignment during the workshop.

2. **Bringing your own data/source/document to the skill training**

We would like you to bring along the following sources:

- A source/document related to your own research. If it is not a tangible object, then please prepare a short description of the single entity of your kind of research material, or the variety of your sources, on paper.
- A textual analog source of your choice: a letter, a report, a telegram, a newspaper
- An analog recording: a magnetic cassette with music or recording of an interview
- A black and white photo, or polaroid, or slide, or photo negative
- A 3 dimensional object that you cherish (should not be shiny or metal)

These materials will be used in the hands on digitization assignment, but it is not guaranteed that we will be able to digitize all materials.

3. Forming teams:

The PhD group should be divided into 4 groups, preferably with:

- Shared language proficiencies (Dutch, French, German, English)
- A balance in expertise: methodology, focus on historical content, tech savvy, humanist / computer science training

Assignment A: Tagging literature with our existing Thesaurus

Material to be provided in advance:

- Google drive as reference point
- link to folder with list of literature and PDFs (see document List of reviewed and summarized literature on Digital Source Criticism)
- link to tables with literature for adding abstracts and tagging (see screenshot)

Rationale of the assignment: Each group should read/view 2 mandatory articles in advance, and write a short abstract of max 300 words about an article of their choice. Preferably in a language in which they are proficient. These short abstracts should be added in a Google Doc table ahead of the workshop, so that every publication is represented by an abstract. This overview is copied so that each of the teams has his own copy.

1. The assignment consists in tagging each article on the basis of the DH thesaurus that has already been developed. In some cases this will create the need for new entries. What has to be included are the following criteria:

a. **To which discipline does this article/poster/assignment belong:**

Information Science / History / Cultural Studies / Media Studies / Archival and Library Studies / Educational Studies / Science and Technology Studies / Digital Humanities / Pedagogy / Methods of Research/ Historiography/Computer Science

b. Tag the articles:

Decontextualisation / Information and media literacy / Tool Criticism / Source type: text, 3d object, sound and moving image, image / Authenticity / Trust / Tracing of origin / Multimodality / Multimedia / Source code

Use descriptions and definitions from the 'DH Glossary': http://www.dhlab.lu/dh-glossary/

Evaluation

Collective - At the end of the session, the various overviews created by these groups, will be compared on the big screen, the differences in appraisal will be discussed.

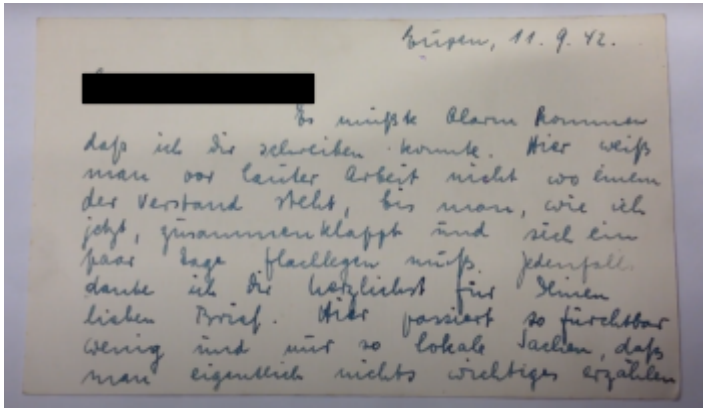
Illustration of one publication in Google doc

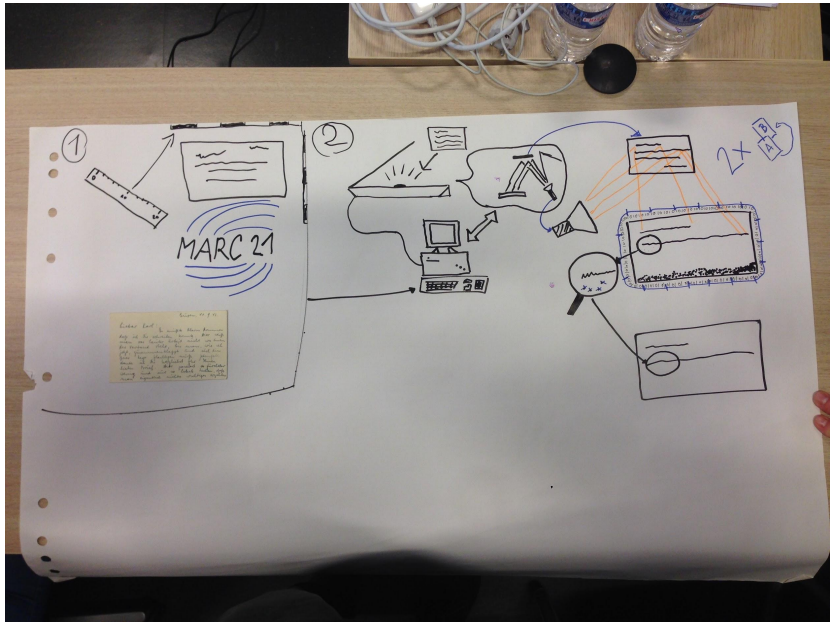
Literature list on the Topic of Digital Source Criticism	name of participant	abstract of 300 words	tagging with thesaurus	suggest new terms	In the context of which discipline(s) was this article written/conceived?	what would be a suitable audience for this article?
Jasmijn Van Gorp, Sonja de Leeuw, Justin van Wees, Bouke Huurnink; DIGITAL MEDIA ARCHAEOLOGY; DIGGING INTO THE DIGITAL TOOL AVRESEARCHERXL; VIEW, Journal for European Television History Culture, Volume 4, 2015 http://viewjournal.eu/archaeologies-of-tele-visions-and-realities/digital-media-archaeology/		Digital technology has tremendously increased available information about human activities, mostly during the historical periods and especially after the birth of Internet and Web. This abundance of information has completely reformed the way empirical humanities work and is having a similar impact on the research process of historians. Current article discusses the epistemological and methodological challenges posed by the availability of new datasets and the use of new tools for them. As a case study a statistical search tool AVResearcherXL is presented from the perspective of self reflective user experience. AVResearcherXL is an exploratory tool intended for media studies research and provides query interface to metadata databases of Dutch public television and radio programmes and a selection of newspapers. The search results can be visualized and compared to provide a insight into past processes in interest. By analysing the work 'television' the article provides insight into how the interpretation of statistical output is highly dependant on detail in case of narrative construction. The notion of media archaeology is brought up as way to analyse the sources, their retrieval technologies and also statistical tools. The articles presents AVResearcherXL as a explorative and hypothesis creative tool. It also suggests that this might be the case of most statistical tools for historical research focused on narrative creation.	heuristics of search, media literacy, public history, tool criticism	statistical methods, creative exploration	media studies, statistics	media historians, cultural statisticians

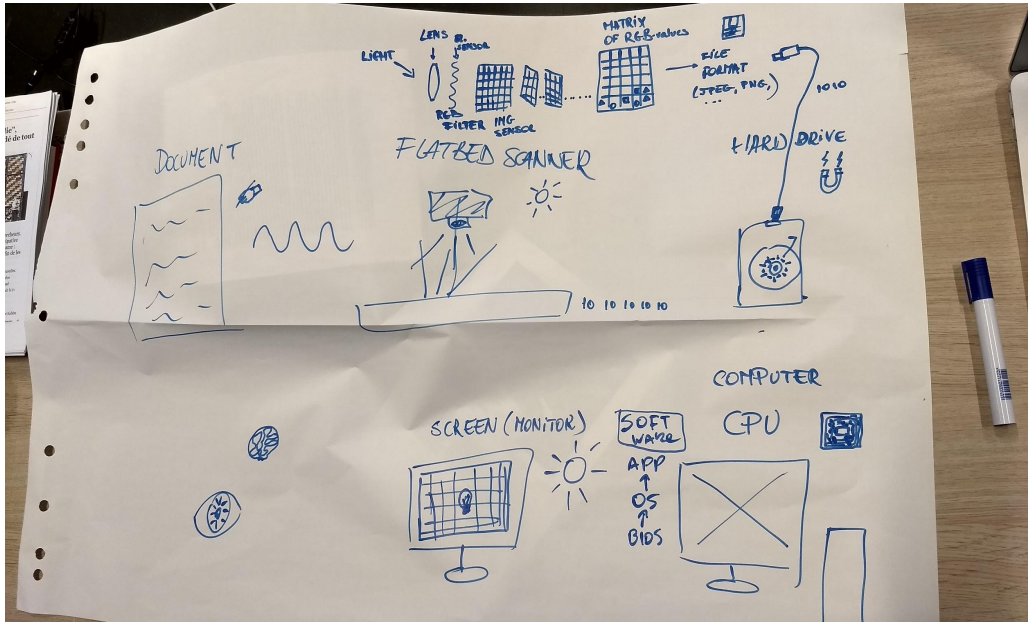
Assignment B: Envision the transformation from analogue to digital

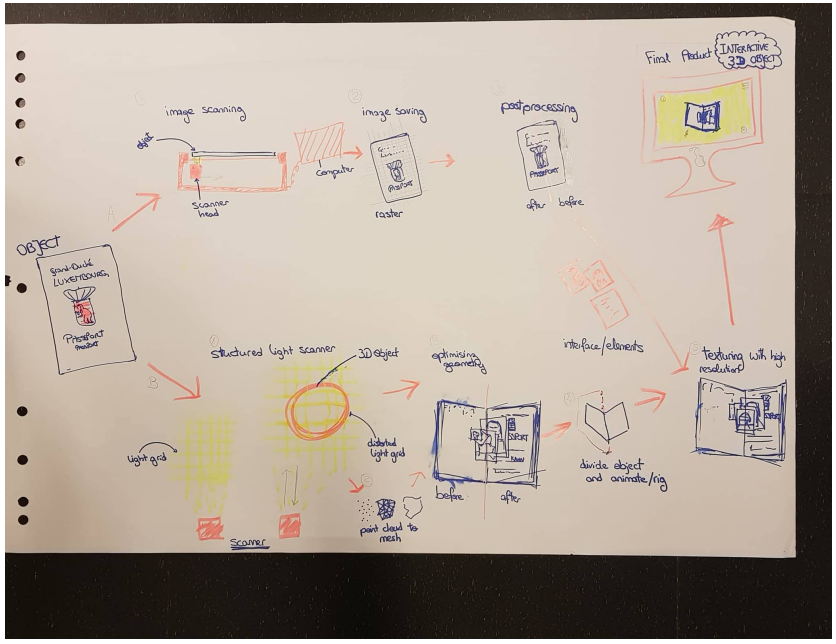
This assignment is done in teams of 5:
The multiple teams will together consider the objects/data/ sources that they have brought along. (text, image, audio/visual) and choose 4 different data types for the team to concentrate on: text, image, av and object.
The objective is to create short drawings and sketches, of the tiniest steps that are taken, from the creation of the object, to its transfer to an archive, its preservation and documentation, its digitization and the final consultation by an audience on the web. This includes all chemical and technical transformation processes from light particles to voltage pulses through transistors, movements of air for sound, and human interaction in terms of interpretation and use of the senses.
Every step should be documented on paper and put in the right order. They have white boards, digital white bord, or paper board at their disposal. The teams can consult a whole range of clips that have been selected in which these transformations are explained (e.g. what sound is, what OCR is, what mark-up language is, what pixels are, how YouTube material is processed and played out). At the end of the assignment, each team presents its chain of transformation. An expert gives feedback on the presentations.

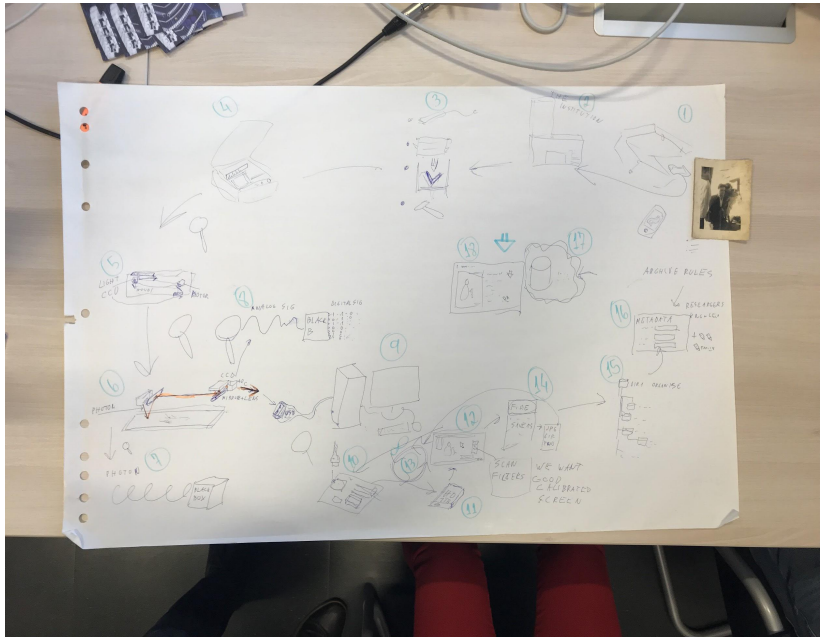
Source type: text
Source type: 3d object
Source type: sound and moving image
Source type: image




MARC 21


LIGHT
LENS
RGB FILTER
IMG SENSOR
MATRIX OF R-G-B values
FILE FORMAT (JPEG, PNG, ...)
1010
HARD DRIVE
DOCUMENT
FLATBED SCANNER
COMPUTER
SCREEN (MONITOR)
SOFT WARE
APP
OS
BIOS
CPU


Final Product
INTERACTIVE 3D OBJECT
image scanning
image saving
post processing
object
scanner head
computer
raster
after
before
OBJECT
Structured light scanner
3D object
distorted light grid
light grid
scanner
point cloud to mesh
optimising geometry
before
after
interface/elements
divide object and animate/rig
texturing with high resolution



Assignment C: Hands on Digitization/transformation

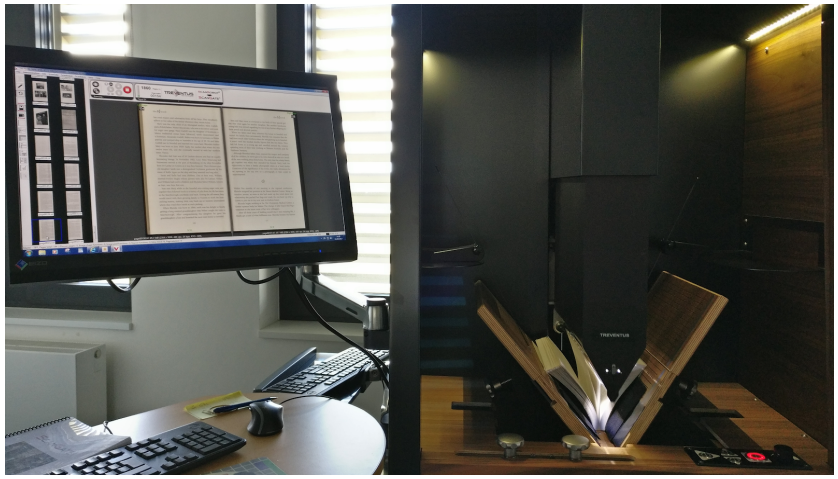
The objective is to have all 4 groups go through the various phases of the process of digitization of different sources in the DH Lab:
- digitize text
- digitize image
- digitize object
- digitize AV (that would be sound)

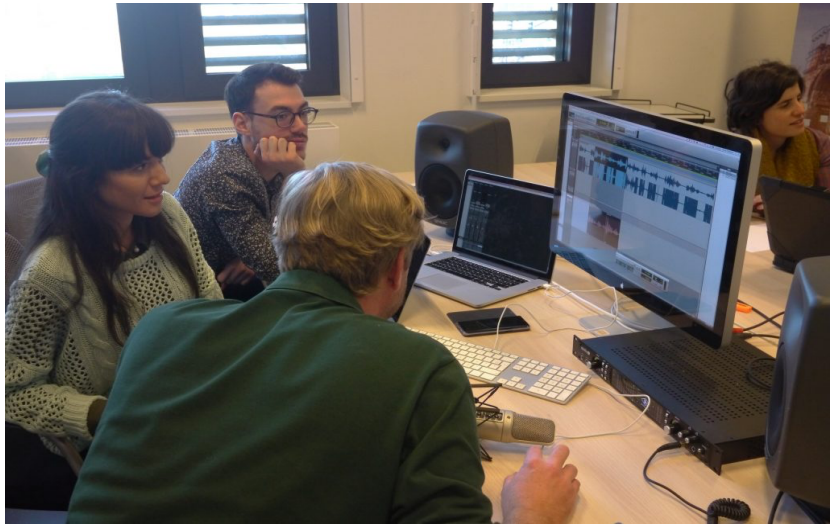
The groups should be split up in 4 groups of 5 people, they are given link to a table in which they have to document their experiences with their object
We have 5 rounds of 30 minutes, that is 2,5 hour, we have 3 hours at our disposal from 9 to 12 , so after 3 or 2 rounds you take a break of 20 min.

What are we going to use? maybe we could vary:	What technology is available	How much time does the digitization process take?	What is the outcome?	How to learn from this experience?
Text: letter, typed text, newspaper, book, The group can be split in two - 5 people are involved in preparing the book to be scanned, - 5 people on the	Book Scanner	1 x 30 minutes 1 group scanning 1 x 30 minutes 1 group for processing scanned pages (groups swap after 30 minutes)	Working with different types of books, - Transform them through scanning into digital files with OCR .	- Manual scanning techniques of analogue sources - Manipulation of scanned pages/cropping/ - enhancements - Working with optical character recognition software

opposite side, are involved in processing the JPEG in order to set color, language etc. Each person takes turns with an active intervention.				
Image: painting, photo, drawing, Print/Negative Assess whether it is possible to use the material that the group has brought along Group of 5 is involved in scanning analog image through scanner, they take turns in scanning an analog image and retrieving the digital results	Epson Perfection V800 scanner:	30 minutes	Archive negatives/prints handling protocols gain experience in working with fragile media	- Identification of negative and print conditions and remedies prior to transformation digitisation formats / impact of
film/audio: cassette, audio reel, video Assess whether it is	Audio - Pro Tools - capture & editing.	30 minutes	Understanding of recording techniques and workflows to both capture (analogue) sound	- Basic recording practices and workflows to create an analogue to

possible to use the material that the group has brought along Group of 5 is involved in turning cassette into digital audio and editing the audio. Each person takes turns with an active intervention			(interviews/environmental) and convert to digital files.	digital source. - Editing and treatments of sound - Basic introduction to Audacity
Object: building, object (vase, ax) Assess whether it is possible to use the material that the group has brought along Group of 5 is involved in scanning the objects that they have brought along Each person takes turns with an active intervention	3D Portable Scanner (Eva Scanner)	30 minutes	Produce a digital representation on the laptop of an everyday object.	- Skills in capturing a digital representation of a physical object.





As evaluation of this experience each group has to complete a table in a google doc:

Datatype Describe what you have used	**Analog materials** What are its material properties? In what physical context can you experience/view/read this object/document? What senses are activated?	**Technology for digitization** What technology has been used?	**What changes have you noticed:** Think of: scale, color, size, font materiality, scent, sound, weight, historical sensation, historical context, documentation context, storage, preservation, restoration, molecules, physical properties, air waves, light, electricity, uniqueness, exclusiveness, price, accessibility, emotional value, commercial value, scientific value, personal property, public property, power relations, authorship, credits, forgery, fraud, plagiarism,	**Digital object: format,** What is the new format? In which physical context can you experience/view/read this digital representation? What senses are activated? What is the consequence for the way it is handled/used as a historical source of knowledge?
text				
image,				
audio				
object				

Illustration of such a scheme in Google tables

Datatype Describe what you have used	Analog materials What are its material properties? In what physical context can you experience/view/read this object/document? What senses are activated?	Technology for digitization What technology has been used?	What changes have you noticed: scale, color, size, font, materiality, scent, sound, weight, historical sensation, historical context, documentation context, storage, preservation, restoration, molecules, physical properties air waves, light, electricity, uniqueness, exclusiveness, price, accessibility, emotional value, commercial value, scientific value, personal property, public property, power relations, authorship, credits, forgery, fraud, plagiarism,
Book	text	Treventus Scanner	loss of materiality and idea of the size of the book; also question of quality, colour or b/w (depending on the settings); addition of OCR; use of light to scan the pages, the book as an real object turns into data; the "relief" gets lost, the kind of paper used; provides "universal" access; preservation
Passport	image,	Epson Scan	document type: reflective for pictures, except if it's a negative; preview scanning, scan, save in the format you want, we chose TIFF. For negative scanning you take off the white sheet and place the negative in th film holder and place it in the scanner. Once scanned, possible to use different filters, to change tone, colours etc. Also, the idea of the size of the original object/document gets lost, as you can zoom in and out
Interview recording; microphone recording	audio	phone and pro tools	have the frequencies right and the level of the recording; was recorded with 128kbps and 44.1 khz; and distortioin in sound as the volume threshold was exceeded during the recording
Extinguisher, Passport, Box	object	photogrammetry (traking photos from different angles which are then combined by the software) and smartphone	the light reflexions on the object are always specific to the context the pictures were taken; the emotional value will be lost during the digitization process; an object that reflects too much light cannot be 3D scanned; 3rd try: took photos of a white box. it should be sth with a pattern on the surface. many limitations. apparently the problem is the camera...

Assignment D: What are the changing meanings of the term 'Digital Source Criticism'?

The PhD group should be divided into DIFFERENT groups than in the morning session, 5 in total:

- Each group traces the origin of a specific term: 'Digital', "Source", "Criticism", but also combinations: "Digital Source", "Source Criticism", "Digital Source Criticism", and writes a lemma about it in a table, documenting the origin of the information. In addition a number of articles are reviewed from different disciplines in which the term 'digital source criticism' is used. This to map the various perspectives that exist on the meaning of the term.
- At the end of the assignment the table is completed with lemmas about the different meanings and the time and person/institution and context in which the term was introduced.
- The results are going to be reviewed by experts at the end of the day.

Illustration of part of the Google doc

key term	origin	meaning and context	source that has been consulted	description for the thesaurus
Source Criticism	Droysen (1883)	Source criticism in nineteent-century German historicism, which set the standards for professional historical scholarship, was bound up with the notion of understanding (Verstehen) as the means to access the meaning of texts from the past. And in this respect, not Ranke, but Johann Gustav Droysen (1808-1884) was the key figure. Droysen carefully distinguished between the rather technicl aspects of 'source-criticism', and the more substantial 'interpretation' of past ideas and meanings.	Reading Primary Sources.	Understanding history meant interpreting particular phenomena as part of a whole, a whole that was constructed by the historian in order to determine their historical significance.
Digital Source Criticism	First use seems to be Reisinger (2001), but nobody cites this. Instead, most authors are their own origin of "digital source criticism" by reimagining individually what "source criticism" should look like in the digital age	As all authors reimagine the term, meanings and contexts thus diverge, but in principal it refers to applying "source criticism" to digital sources, with their digital peculiarities which require an update of the method of source criticism	Reisinger (2001) https://monoskop.org/images/d/dd/Daniels_Dieter_Reisinger_Gunther_eds_netpioneers_1_0_contextualising_early_net-based_art_intro_index_missing.pdf	The updated framework of methods to achieve source criticism, acknowledging the peculiarities of digital sources

ASSIGNMENT E: EVALUATION

Participants make pairs. To finalize the assignment they have to record short interviews of max 3 minutes with each other with their iPhones, about how the nature of their sources relates to the concept of Digital Source Criticism. They have their short description of the source in front of them, that they have prepared in advance. The answers should be given in the language that you are most proficient with, there is the possibility to subtitle it in English if necessary. The clips should be uploaded to the folder of the assignments. This material will be used to evaluate the approach of the training, and if deemed suitable could be published on the website of the centre.

- What kind of sources do you use for your research?
- To what extent can you apply the principle of Digital Source Criticism to your material?
- What has struck you most during this training?

[Reflections on Digital Source Criticism – Doctoral Training Unit]