

DIGITISING BETWEEN THE LINES: REPRESENTATION OR READING? AN ESSAY

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ABSTRACT

This contribution is based on my experience of the digitisation of watermarked papers at Zabīd (Yemen, see <http://www.anne.regourd.org/programme-zabid>). Some believe that digitisation will in future provide a more than adequate surrogate for direct experience of the original object to remote enquirers. Our work in Zabīd suggests that digitisers are surrogate readers of the original object who cannot completely anticipate the questions to be asked of the object of by remote and future enquirers.

KEY WORDS: digitisation; data bases; digital surrogates; manuscripts; access to the original manuscripts; paper studies; paper identification; paper history; paper trade; paper fabrication; watermarks; laid-lines; chain-lines; manuscript conservation; Yemen; Zabīd.

DIGITALIZACIÓN ENTRE LÍNEAS: REPRESENTACIÓN O LECTURA DIRECTA: UN ENSAYO

RESUMEN

Esta contribución se basa en mi experiencia de digitalización de documentos con filigrana en Zabid (Yemen, véase [HTTP://WWW.ANNE.REGOURD.ORG/PROGRAMME-ZABID](http://www.anne.regourd.org/programme-zabid)). Se cree que, en el futuro, la digitalización permitirá a los investigadores que accedan al objeto de forma indirecta una aproximación de mejor calidad. Nuestro trabajo en Zabid sugiere que los digitalizadores son lectores secundarios del objeto original y que no pueden anticiparse totalmente a las dudas que pueden formular los posibles investigadores remotos.

PALABRAS CLAVE: digitalización; bases de datos; objetos secundarios digitalizados; manuscritos; acceso a manuscritos originales; historia del papel; tratamiento del papel; estudio del papel; fabricación de papel; filigranas; trazado del papel; marcas del papel; conservación de manuscritos; yemen; zabīd.

I. INTRODUCTION. STATEMENT OF THE PROBLEM

It is common to present the digitisation of manuscripts as a way to conserve them. This is not obviously false, and in an emergency, it is better than nothing. However, we have already had occasion to show that the generally held view of the manuscript, which sees it as a text rather than as an object, can lead scholars to ignore its physical characteristics. This is why we have raised the question: "When we digitise, what is it that we digitise?" and demonstrated an interest in

* I would like to thank Peter Nix for discussions during the writing of this paper.

digitising the paper of manuscripts.¹ Admittedly, since the first digitisation initiatives, the situation has improved when it comes to capturing features of the manuscript as object. More and more frequently, we see the cover and the cover pages of digitised manuscripts. Nevertheless we want to repeat the same question here, *i.e.* “When we digitise, what is it that we digitise?” and, while taking into account the progress of digitisation, show that this question remains relevant.

One of the attractions of the digitisation of manuscripts lies in the implicit assumption, to which it is closely related, that we “save” the manuscripts forever. Any librarian or library curator knows the problems storing data raised for this enterprise by the perishability of materials and by technical obsolescence. In this regard, it is important that the various “layers” of capture which are rendered obsolete by the emergence of new technologies, *i.e.* chronologically, microfiche, microfilm, CD, electronic databases, online repository and electronic records continue to be maintained, because objects too frequently disappear from libraries and museums.

Our aim is to develop a critical approach to the tools technology offers, and to use them with understanding. Basically, it is just to keep doing what any scientist does with his tools. A critical approach to the digitisation of manuscripts has several facets. Some, as we have seen, are technical. Others are legal or even more interestingly, political. The question we want to address here is that of representation applied to the creation of digitisations. By digitising, we may save, but what do we save?

II. OUTLINE

To better explain our purpose, we will refer to the case of digitisation of papers conducted *in situ* in Zabīd in Yemen.

This town, in the Tihāma region that forms a coastal strip on the Red Sea, has been the centre of Sunni learning in Yemen since the eleventh century and still houses the libraries of scholars. As its title indicates, the objective of the Programme to Safeguard Manuscripts in the Libraries of Zabīd (now ZP) is to save not only the texts, but most of all, the books themselves.²

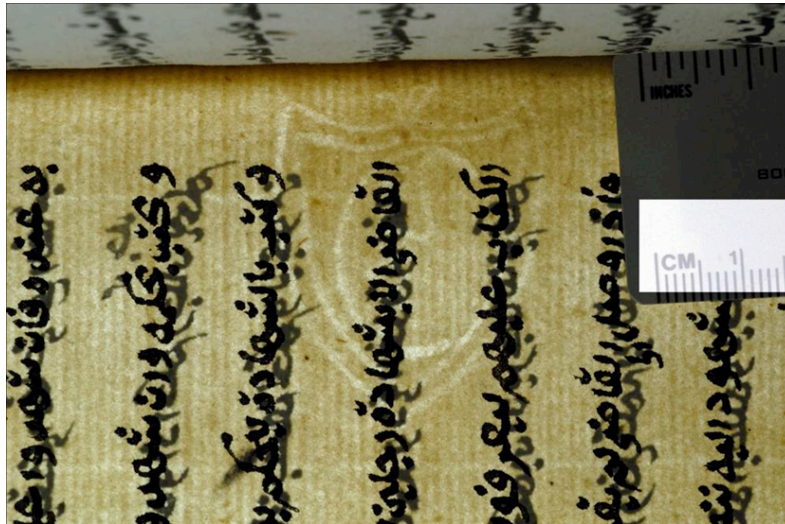
The digitisation of watermarked papers used in manuscripts is an important part of the Programme. They were collected in a catalogue published under the general title of the series: *Catalogue cumulé des bibliothèques de manuscrits de Zabid*.³ On several occasions, we have insisted in response to the

¹ See for instance Regourd (forthcoming).

² The ZP is a Programme of the Centre français d’archéologie et de sciences sociales (CEFAS), Ṣan’ā’, see <http://www.cefass.com.ye/spip.php?article300> and <http://www.anne.regourd.org/programme-zabid>.

³ Regourd - David - al-Ahmar (2008), free access at <http://www.cefass.com.ye/spip.php?article387>.

question of what is to be digitised that the emphasis be on digitising the object, and hence the medium supporting the writing.⁴



1.a.b. Watermark and countermark, Italian paper *Cartiera de Mori Vittorio*.
© Programme to Safeguard Manuscripts in the Libraries of Zabīd

The manuscripts which have been catalogued were produced between the middle of the 17th century, and the 1980s. The authors of the texts are, themselves, of various periods and origins: it is thus that these collections can be said to be, in part, medieval; nevertheless it is a very tiny part.⁵ It is difficult to prove conclusively as the compilation of a statistical table for the manuscripts of the region would be an enormous task, but it certainly reflects the situation of the majority of Yemeni and African private libraries.

All activities of the ZP were performed *in situ*. Zabīd itself is approximately six hours drive from Yemen's capital, Ṣan'ā', and a good hour

⁴ See footnote 1.

⁵ See the authors of the manuscripts catalogued in Regourd (2006).

from al-Hudayda, the largest industrial port in the Red Sea. One very evident advantage of having the object under study as a digital image is that you can take it away with you.

III. WHAT IS THE PRESENT KNOWLEDGE/LITERATURE?

The study of manuscripts on paper in Islam developed in three principal directions: the dating of the manuscripts (with a view to the authentication of text), which led, among other things, to the production of catalogues of watermarked paper; the history of paper production in Islam with its technological implications, for which work classifying non-watermarked paper is important, as is the study of the components of the pulp; and finally the paper trade, since most countries producing the Arabic manuscripts imported paper, in some cases of Eastern manufacture: in this case, establishing the provenance of the paper and the period of its availability is important. This line of study appeared in 1985, while the second had its seminal articles in the 1990s and the first is the oldest, and goes back to the fifties.⁶

However, these studies do not necessarily collect and assemble comparable information. Thus we do not have catalogues of paper, but rather of watermarks and other paper-marks.⁷ So, despite the many data-fields in the catalogue records which contain complementary information about the paper, which provide us with precise instruments of comparison for identifying papers with growing confidence, innumerable and invaluable descriptions, and whose number and contents have been debated since the eighties,⁸ the question remains: are they sufficient to make up for the lack of a catalogue of papers?⁹

In reality these lists do no more than defer a question that will later resurface. Whoever makes such lists has been taught by experience, that no matter how much data he has collected in the past, he has omitted some that would later have been pertinent, so that he will not collect what will be needed by the codicologists of the future. It is this question which preoccupies us here.

IV. THE CHARACTERISTICS OF PAPERS

Classification and identification of papers leads us to look at more structural characteristics. Those whose presence is regular allow us to identify and define papers. But a typically recurring problem for the scientist is the variation of the distance occupied by 20 laid-lines or between two chain-lines: variations originating in the contact of the pulp with the metal grid of the mould; although

⁶ *Catalogues* (1950-1994); Irigoien (1980), (1993), (1997); Humbert (1998); Walz (1985); an update of this article was published as Walz (2011).

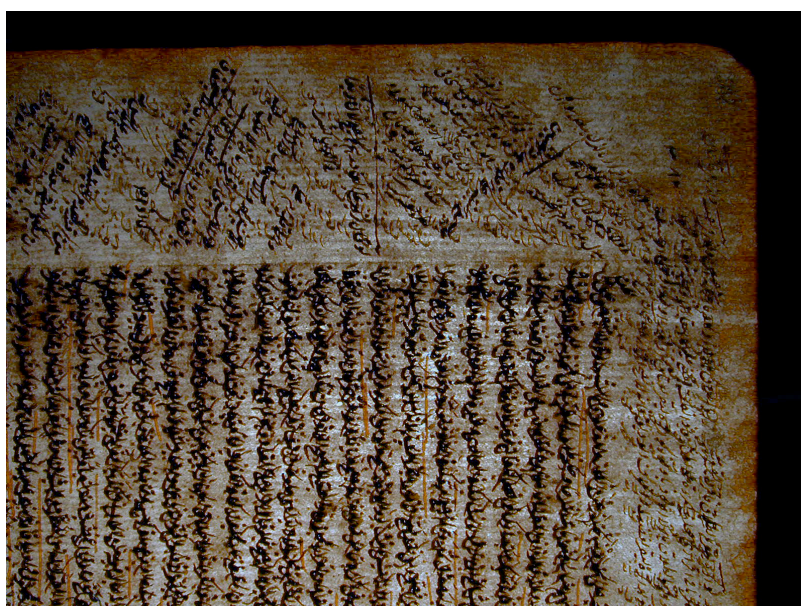
⁷ Whether a tracing of the watermark and countermark is sufficient to date a paper is not the topic here.

⁸ For instance, Zerdoun (1989). And for the Oriental papers, Bavavéas and Humbert (1990).

⁹ The construction of indexes for books raises similar questions.

these measurements are used as criteria for the identification of papers, they lead to methodological issues: how to measure? Why this folio, is not it arbitrary? Do we not have to do to find a mean value? How great is the variation from the mean?

Examining papers in order to reconstruct manufacturing techniques is distinct from trying to classify and identify the papers. The examination of paper provides other extremely valuable information, which could be grouped under the name of “accidental marks”, as opposed to these structural signs that we just mentioned and which include mark brands, the nature of the pulp and the mould. Among these accidental signs, we must count the marks, not always correct or intended, and sometimes just plain wrong, produced by the actions of the craftsman and his tools. They deserve to be identified as so many “signs and traces” that provide information on manufacturing technique and its accidents. There are: water drops, shadows which are parallel to the laid-lines, the catching of fibres between laid-lines, deformations of the laid-lines, brush marks, sizing, and glazing. Consider, for example the case of the discs formed by water drops which are clearer than the rest of the sheet and around the periphery of which is a darker border. Variable in diameter (5-10 mm), sometimes more, these discs appear in isolation or may be grouped randomly. They are the result of water falling, mostly from the hands or arms of the worker at the time of draining or just after coating. The impact of the drop on the sheet pushes the pulp aside and produces the darker border. When frequent, they indicate hasty and somewhat careless work.¹⁰ Other marks contribute to our knowledge of the process of making paper, such as finger prints made during the transfer of wet paper or marks made during drying.



2. Ms. Arabe 57, fol. 382, Institut Français d'Études sur l'Asie Centrale (IFEAC).
Courtesy of Jean-Louis Estève

¹⁰ For all this paragraph, cf. Estève (forthcoming).

Observation of the accidental marks on paper allows us to distinguish the products of Eastern paper makers from those of the West, whose moulds are different and leave correspondingly different accidental marks. These marks have not attracted attention, and certainly not that of specialists in dating papers, although they now seem relevant to a different type of research.

V. THE INTEREST OF PREVIOUS RESEARCH AND DOCUMENTATION FOR DIGITISATION

Should we then digitise the papers of every page without exception? Or more generally, should we digitise everything with blind faith and risk pursuing the futile perfection satirised by Jorge Luis Borges in his short story "On Exactitude in Science": where the Guild of cartographers in a mythical Empire, seeking to make ever more accurate maps, finally produce one as large as the Empire itself, and quite impractical to use.¹¹ Instead we should digitise what a preliminary examination of the pages suggests will be necessary for the realisation of our research objectives for this particular project. This dynamic relation between the object, its digitisation, and its documentation has been achieved in the case of the watermarked papers collected in Zabīd.

We see the first selection has focused on the type of paper that you would consider: the watermarked papers were preferred, among other types of paper, because, apart from the note-books where the manuscripts of the 20th century have been written, they constituted the vast majority of papers found in the manuscripts of the first library catalogued by the ZP, that of 'Abd al-Rahman al-Hadhrami, and which were produced, it is said, between the 17th and 20th centuries. By cross-comparison, it appeared that the manuscript books of the library, although they were not inherited but acquired during the life of its owner, who died in 1983, were nevertheless broadly representative of the actual manuscript books still present in the city. From the point of view of ZP, which depends on the organisation of a team based in Zabīd, it seemed important, therefore, to insist on examination and description of these papers.

Catalogues of watermarks are not available on-site in Zabīd,¹² and those that exist elsewhere were, with a few recent exceptions, written in languages other than Arabic. The freehand drawings of watermarks made by 'Abd al-Rahman al-Ahmar, a member of the ZP team, is an important part of this work of documentation, which involved going back and forth between the object and the instruments of comparison.¹³ One might imagine that sometimes we do not know what we are looking for, or at any rate what is relevant. The choice of

¹¹ Borges (1999: 325), original title, "Del rigor en la ciencia".

¹² It is difficult to encourage the study of paper if, for one reason or another, the instruments of comparison are unavailable.

¹³ See the reproduction of two watermarks on tracing paper by 'Abd al-Rahman al-Ahmar in Regourd (2013).

objects to digitise in order to identify papers in the ZP is influenced by two further goals: to date documents, and to add to our knowledge of the paper trade (Regourd 2006).

VI. CONCLUSION: HOW TO ANTICIPATE FURTHER RESEARCH?

Today we are accumulating data which assist in paper identification, in establishing production techniques, which assist in dating and authentication, which add to the history of paper fabrication and, more recently, to the history of the paper trade. What about tomorrow?

Literature on the laid-lines, chain-lines and the pulps of individual papers is even slighter than that on watermarks. Only when we collect this information can we discover what there is to be learnt from it and in what form it is best collected.

Additionally, we can anticipate that developments in IT will make possible automatic comparisons of micro-features of paper that are not easily done by human effort.

Mainly, how we digitise paper (as opposed to texts) depends on the purposes for which we need the information in the future: but the nature of future scholarly enquiry based on a knowledge of paper is uncertain.

Some believe that digitisation will in future provide remote enquirers with a more than adequate surrogate for direct experience of the original object. Our work in Zabīd suggests that digitisers are surrogate readers of the original object who cannot completely anticipate the questions to be asked of the object by remote and future enquirers. Our purpose, therefore, is not to be pessimistic about the value of pursuing studies on papers, and its digitisation, but rather to show the importance of preserving access to the original object. In this sense, digitisation does not necessarily mean conservation.

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