

ABSTRACT. The 1572 edition of *Os Lusíadas* has been at the centre of a well-known polemic. Yet discussions have privileged comparison of errors and textual collation. This article inaugurates a research project applying in-depth bibliographical analysis to a large sample of exemplars. It compiles information on fifty-one exemplars, including some hitherto unrecorded, and explains which material aspects are being documented. It summarizes how paper has been studied and explains how different methodologies were combined to document the paper types of *Os Lusíadas*. Finally, it proposes that António Gonçalves printed the first edition of Camões's epic in at least three separate stages.

KEYWORDS. *Os Lusíadas*, 1572, first edition, census, bibliography, paper, watermark.

The Question of Paper in *Os Lusíadas*, 1572¹

1 Introduction

In February, 2016 a visit to the Bodleian Library to consult their copy of the first edition of *Os Lusíadas* led to a set of questions which would become a true academic detective story. The book is bound in parchment over boards, the paper pastedown on the inner front cover, now much torn, has a pencil note in careful calligraphy. It reads:

Genuine ed. There is a “false” / ed. of Lisbon, 1572. (See letter from /
Lisbon – Bibliothèque Nationale, / Nov. 1920). R.H.H. 25.xi.20.

The letter, in French, is addressed to the director of the Bodleian Library by the director of the Biblioteca Nacional de Portugal and requests drawings of watermarks from the Bodleian copy.² Reginald H. Hill, the librarian who recorded the existence of this correspondence on the Bodleian copy, sent tracings of ten watermarks on that 25th November, 1920.³ The request was made to inform the new facsimile edition prepared by Rodrigues in 1921, who preceded it by a good, if somewhat conventional, study on the problem of the false 1572 edition; and missed a much more tantalizing issue: the problem of paper in *Os Lusíadas*.

¹ This work was initially conducted through support of the Oxford Bibliographical Society Grant and the Keble Association Study Award; it was completed through support of the British Academy Post-Doctoral Fellowship. Thanks are due to all the libraries who supported this investigation.

² The letter is archived in the Bodleian Library, ‘Library Records’, series for 1920, Library Records c. 723.

³ For Mr Hill, see “Notes and News”, *The Bodleian Library Record*, n. 6, 9 (1978), 311-3.

Mr Oliver House, Archives Assistant, and Ms Anne Lawrence, Deputy Superintendent at the Bodleian Library, helped locating the letter and identifying Mr Hill.

2 Background

Camões's epic, according to the imprint in its title page, was first published in 1572 by the small Lisbon printing house of António Gonçalves.⁴ The distinctive value of the first edition of *Os Lusíadas* may not be entirely obvious. It certainly seems to have escaped the attention of those who researched it. Everyone knows the importance of the poem to Lusophone culture, everyone understands the symbolic value of the first edition of a book and, indeed, anyone willing to produce a critical edition would naturally give attention to its earliest available source. But the most crucial aspect in this case lies somewhere else. Apart from *Os Lusíadas*, in his lifetime Camões published only the *Ode ao Conde de Redondo*, in 1563 and two poems included in the *História da Província de Santa Cruz*, in 1576. These are short texts, representing a tiny part of Camões's literary output. Otherwise, his whole corpus – all the lyric poetry and the drama – was published posthumously. Investigations on Camões's lyric, therefore, should give less emphasis to the printed texts and pay more attention to the manuscripts. The two first editions of his lyric pieces, from 1595 and 1598, were probably copied from a group of manuscripts which were circulating some years after his death and may be quite distant from Camões's autographs. The manuscripts, instead, especially the sixteenth-century manuscripts, may be closer to Camões's own text. This gives *Os Lusíadas* a very special value within Camões's corpus: it is by far the longest, the most expressive *printed text* enjoying a very close, possibly direct relationship with an autograph manuscript. With *Os Lusíadas* one can at least glimpse the process of transferring the text as approved by Camões into a publication: how a printing house functioned in Camões's lifetime and what impact, if any, the compositors copying this text had on it. And only by uncovering how António Gonçalves's workshop functioned, will it be possible to trace the manuscript and printed tradition of *Os Lusíadas*.

⁴ *Impressos em Lisboa, com licença da / sancta Inquisição, & do Ordina- / rio: em casa de Antonio Gõçaluez Impressor. / 1572.*

The main academic debate around the first edition of *Os Lusíadas* is well known and yet worth summarizing. The first record of two editions dated 1572 is by Faria e Sousa, published posthumously in 1685. For him, the first edition sold out quickly – a mark of Camões’s international success – and had to be re-printed, still in 1572, on which occasion it was also improved.⁵

Yet the first, albeit not entirely systematic, analysis would have to wait until 1817 when José Maria Sousa-Botelho published his critical edition.⁶ Sousa-Botelho, commonly known by the title Morgado de Mateus, highlighted the need to edit *Os Lusíadas* based on the first edition. He compared two copies, which were almost identical, and through correspondence obtained information about a third copy. He was able to list a number of textual differences and even noted the existence of two title pages. Like Faria e Sousa, he maintained that there were two editions printed in 1572. He shows great uncertainty as to which would be the first but ultimately, he is inclined to follow Faria e Sousa in this regard too.

After the Morgado de Mateus, many addressed the question of which is the first edition, though consensus has yet to be achieved. The debate has often focused on some common issues. Firstly, the title page. There are at least two different title pages distinguishable, among other characteristics, from the pelican at the top, which may face either the left or the right of the reader. Secondly, the typographical errors: the collation of variants indicates that the left pelican is generally associated with fewer errors. This edition is normally referred as S (“sinistra”) or Ee, as opposed to D (“destra”) or E. The *E* versus *Ee* designation derives from the seventh line

⁵ *Rimas Varias de Luis de Camoens, Principe de los Poetas Heroycos y Lyricos de España*, ed. by Manuel de Faria e Sousa, 2 vols (Lisboa: Theotonio Damaso de Mello Impressor de la Casa Real, 1685; repr. Lisboa: Imprensa Nacional-Casa Moeda, 1972), I, “Vida del Poeta”, § 27 (no page number).

⁶ *Os Lusíadas, Poema Épico de Luís de Camões*, ed. by Joze Maria de Souza-Botelho (Paris: Firmin Didot, 1817).

of the first stanza of Canto I, printed as *Entre gente remota edificáram* and *E entre gente remota edificarão*.

Nineteenth-century scholars, such as José Gomes Monteiro, Wilhelm Storck, José do Canto and Carolina Michaëlis argued that E would be the first.⁷ In the twentieth century Aquilino Ribeiro and Bernardo Xavier Coutinho still maintained this.⁸ Yet increasingly the view that Ee must be the first gained favour and is represented by Tito de Noronha, Francisco Amorim, Augusto da Silva Dias, Theophilo Braga, José Maria Rodrigues, Hernani Cidade, Francisco da Silveira Bueno, Álvaro Pimpão and Roger Bismut.⁹ This theory often considered E as a pirate edition.

⁷ José Gomes Monteiro, *Os Lusíadas. Edição crítica-comemorativa* (Porto: Emílio Biel, 1880), pp. XXVIII-XXXII.

Wilhelm Storck, *Vida e obras de Luis de Camões*, trans. by Carolina Michaëlis de Vasconcellos (Lisboa: Academia Real das Sciencias, 1898), pp. 698-700, §376.

José do Canto, *Colecção Camoniana de José do Canto* (Lisboa: Imprensa Nacional, 1895; repr. 1972), pp. 1-4.

Obras de Luis de Camões. Os Lusíadas, ed. by Carolina Michaëlis de Vasconcellos, 4 vols (Strasbourg: Heitz & Mündel, 1905-08), I, pp. 20-23.

⁸ Aquilino Ribeiro, 'A Edição Princeps dos Lusíadas', in *Camões, Camilo, Eça e Alguns Mais*, 3rd edn, (Lisboa: Livraria Bertrand, [1949?]), pp. 89-108.

Bernardo Xavier Coutinho, 'A Edição "Princeps" de Os Lusíadas: Um problema complexo e difícil (ou insolúvel). Muito provavelmente houve 3 edições "princeps", e não apenas 2, com a data (simulada) de 1572', *Arquivos do Centro Cultural Português*, 16 (1981), 571-719.

⁹ Tito de Noronha, *A Primeira Edição dos Lusíadas* (Porto e Braga: Livraria Internacional de Ernesto Chardon, 1880).

Francisco Gomes de Amorim, *Os Lusíadas de Luiz de Camões* (Lisboa: Imprensa Nacional, 1889), pp. 65-129.

Occasionally, the very distinction between two editions has been put into doubt.

Starting in the nineteenth century with Antonio da Silva Tullio, the third hypothesis was also adopted by Francisco Agudo and became particularly known after a series of studies by Kenneth David Jackson.¹⁰ According to these scholars, the copies dated 1572 could represent a

Augusto Epifânio da Silva Dias, *Os Lusíadas de Luís de Camões*, 2 vols (Porto: Magalhães & Moniz, 1910), I, pp. XXVI-XXIX.

Theophilo Braga, *Camões. A Obra Lyrica e Épica* (Porto: Livraria Lello & irmão, 1911), pp. 693-710.

José Maria Rodrigues, *Os Lusíadas de Luís de Camões* (Lisboa: Biblioteca Nacional, 1921), pp. I-XIV.

Luís de Camões, *Obras completas*, ed. by Hernani Cidade, 5 vols (Lisboa: Livraria Sá da Costa, 1946-1947), IV, pp. XII-XIX.

Hernani Cidade, 'O problema das edições', in *Luís de Camões*, 2nd edn, 3 vols (Lisboa: Livraria Bertrand, 1952-1956), II, pp. 212-224.

Os Lusíadas de Luís de Camões, ed. by Francisco da Silveira Bueno, 2 vols (São Paulo: Edição Saraiva, 1960), I, pp. 47-56.

Os Lusíadas de Luís de Camões, ed. by Álvaro Júlio da Costa Pimpão (Lisboa: Instituto de Alta Cultura, 1972), pp. XXX-XLII.

Roger Bismut, 'La Critique Textuelle des "Lusiades"', in *Actas da I Reunião Internacional de Camonistas*, (1973), pp. 59-93.

¹⁰ Antonio da Silva Tullio, 'Fac-simile do rosto da primeira edição dos *Lusiadas*, 1572', in *Archivo Pittoresco: Semanario Illustrado* (Lisboa: Castro e Irmão, 1861), IV, pp. 173-175, 183-184, 191-192.

Francisco Dias Agudo, 'A Edição d'Os Lusíadas de 1572', *Garcia da Orta: Revista da Junta de Investigações do Ultramar*, 1972, pp. 1-9.

single edition and their differences could be accounted for by successive changes in the formes. Today, the debate seems divided between those who follow this last solution, such as Vitor Aguiar e Silva and Hélio Alves, and those who maintain that there are two editions, of which Ee is the first, such as Leodegário de Azevedo, Artur Anselmo and João Lisboa.¹¹

Kenneth David Jackson, 'A Critical Edition of the 1572 *Lusíadas*: Preliminary Observations', in *Camoniana Californiana*, ed. by M. de L. Belchior and E. Martínez-López (Santa Barbara: Jorge de Sena Center for Portuguese Studies, University of California, 1985), pp. 20-39.

Kenneth David Jackson, 'Para uma edição crítica de *Os Lusíadas*, 1572: a contribuição dos exemplares mais raros', in *Estudos Portugueses: Homenagem a Luciana Stegagno Picchio* (Lisboa: Difusão Editorial, 1991), pp. 589-601.

Kenneth David Jackson, *Camões and the first edition of The Lusiads [Os Lusíadas], 1572* (Dartmouth, MA: Center for Portuguese Studies and Culture, University of Massachusetts, 2003).

¹¹ Hélio J. S. Alves, *Camões, Corte-Real e o Sistema da Epopeia Quinhentista* (Coimbra: Imprensa da Universidade de Coimbra, 2001), p. 180.

Vítor Aguiar e Silva, 'A guerra dos pelicanos: O problema textológico da edição *princeps* de *Os Lusíadas*', in *A lira dourada e a tuba canora: novos ensaios camonianos* (Lisboa: Livros Cotovia, 2008), pp. 23-54.

Hélio J. S. Alves, 'O problema da edição *princeps* e as edições do século XVI', in *Camões nos prelos de Portugal e da Europa (1563-2000): a Biblioteca Camoniana de D. Manuel II*, ed. by José Augusto Cardoso Bernardes, 2 vols ([Coimbra]: Imprensa da Universidade de Coimbra; Fundação da Casa de Bragança, 2015), II, pp. 15-22.

Leodegário de Azevedo Filho, *Os Lusíadas de Luís de Camões* (Rio de Janeiro: Livraria Francisco Alves, 2007).

Artur Anselmo, *Livros e Mentalidades* (Lisboa: Guimarães Editores, 2002), pp. 98-105.

João Luís Lisboa, 'Uma, duas, quantas edições?', *Cultura*, 33 (2014), 97-108.

All these studies gravitate around one question: which is the first edition? The assumption is that the answer will be given by collation of variants and textual comparison. The problem of text setting is certainly relevant and intriguing, yet the most rigorous approach should involve a bibliographical discussion of *edition* (total text re-setting), *state* (partial text re-setting) and hybrid copies, that is, exemplars composed of sheets from different editions.¹² The proof will come by comparing specific copies using a mechanical collator, a piece of equipment first developed by Charlton Hinman to tackle a similar problem on Shakespeare's First Folio.¹³ Such an analysis is currently being undertaken as part of this project, now possible for *Os Lusíadas* given the many facsimiles available.

The most pressing aspect, however, is the physical analysis of exemplars and, especially, the study of paper types. And here the search for references in secondary literature

¹² The conviction that all three phenomena occur, derives from our analysis of the three copies at the British Library, which neatly exemplify each one of those cases. This was addressed during the VII Association of British and Irish Lusitanists Conference in Sheffield, in September 2017, and will be addressed in greater length in a future article.

For *editions* and *states*, see Philip Gaskell, *A New Introduction to Bibliography* (Oxford: Oxford University Press, 1972), 313-6.

For a longer discussion on defining *edition*, *issue* and *state*, Fredson Bowers, *Principles of bibliographical description* (Princeton: Princeton University Press, 1949), 37ff.

¹³ Charlton Hinman, 'Mechanized Collation: A Preliminary Report', *The Papers of the Bibliographical Society of America*, 41 (1947), 99-106.

Charlton Hinman, 'Variant Readings in the First Folio of Shakespeare', *Shakespeare Quarterly*, No. 3, 4, (1953), 279-288.

Charlton Hinman, *The printing and proof-reading of the first folio of Shakespeare* (Oxford: Oxford University Press, 1963).

was disappointingly elusive. Although Rodrigues asked for watermark tracings from the Bodleian copy, he had only this to say on paper:

se *E* tivesse saído dos prelos de A. Gonçalves em 1572, o papel em que está impressa esta ed. devia naturalmente apresentar as marcas de agua do que foi empregado em *Ee* e em outras publicações do mesmo impressor, o que se não verifica.¹⁴

And completes in this way:

Eis textualmente a informação que sobre o assunto me dá o Sr. Ataíde e Melo, distinto funcionário da B. Nacional: “Comparando as filigranas dos papéis usados por André Lobato e António Gonçalves e as da edição dos *Lusíadas* de 1572 que tem o bico do pelicano voltado para a direita, vê-se que estas se aproximam muito mais do papel empregado por André Lobato. Donde parece poder-se atribuir a este último a impressão da referida edição dos *Lusíadas*, e provavelmente entre 1580 e 1584”.¹⁵

These are crucial elements and yet, neither Rodrigues nor Melo seemed to have published anything else in terms of distinguishing watermarks, reproducing them, locating watermarks within *Os Lusíadas*, documenting which copy or copies were analysed or giving evidence for the putative link with the paper types used by André Lobato. Five decades later, one finds that, for Coutinho, studies of paper types are but a distant dream:

Por exemplo, a comparação do papel, usado na impressão, e o estudo das filigranas continuam, no imediato, impossível ou quase [...] oxalá, um dia, seja possível estudar, também, a natureza ou a qualidade do

¹⁴ Rodrigues, p. xi.

¹⁵ Rodrigues, p.xi, footnote 3.

papel usado, além das suas filigranas, o que não sera inútil. Muito ao contrario.¹⁶

More recently, João Ruas, still from the point of view of determining the number of editions, included observations on watermarks in *Os Lusíadas*.¹⁷ He provides tracings of eight watermarks from Ee and fourteen from E and pursues the idea that the paper types used in the latter are similar to those used by André Lobato in the 1580s. This study, while more systematic than Rodrigues's allusions, still invites further research. It focuses on watermarks, rather than paper types and it is based on tracings, a method for reproducing paper features which is insufficient on its own. Although Ruas would have consulted eleven copies, he does not specify where each watermark occurs, be it across different copies, or within a single copy. He does not document whether each watermark is frequent or rare either. Our analysis of twelve copies, on the other hand, revealed a much larger number of paper types and greater complexity than any study has yet suggested.

3 The surviving exemplars

3.1 The library copies

On the 7th April 2016, the discovery of the two-hundredth and thirty-fourth Shakespeare First Folio at Mount Stuart was announced. The news made it into the press, British and international, and into the University of Oxford website. How many copies of *Os Lusíadas* dated 1572 survive? Sadly, this is not known. A census is therefore necessary, which should record the books' preservation state and singularities.

¹⁶ Coutinho, p. 572 and p. 717.

¹⁷ João Ruas, 'Os dois pelicanos', in *Os Lusíadas de Luís de Camões. Restauro da Primeira Edição de 1572*, ed. by T. Saldanha and A. Sim-Sim (Lisboa: Fundação Ricardo do Espírito Santo Silva, 2009), pp. 21-65.

In secondary literature the only estimate found – and it may not be far from the truth – sets the number at around fifty copies, regardless of textual versions:

a primeira edição d’*Os Lusíadas*, com a epopeia de Luís de Camões, é [...] hoje uma raridade bibliográfica. Existem apenas 40 a 50 exemplares nas principais bibliotecas do mundo ocidental, em algumas coleções particulares e nas mãos de bibliófilos especializados.¹⁸

Since the Morgado de Mateus’s pioneer work, different censuses have been made over the years and the list of known copies has gradually expanded. The most comprehensive lists of exemplars are those published by Jackson and Coutinho.¹⁹ Combined they give a total of thirty-two copies kept in institutional libraries, listed with shelf-marks, if available:²⁰

Brazil

Rio de Janeiro

Academia Brasileira de Letras — LC-C192L

Biblioteca Nacional — C,29,29A

Instituto Histórico e Geográfico Brasileiro — ARM.OR

Real Gabinete Português de Leitura — 1 exemplar

France – Paris. Bibliothèque nationale de France — RES P-YG-38

— RES-YG-74

Germany – Stuttgart. Brasilien-Bibliothek der Robert Bosch — 1 exemplar

¹⁸ Kenneth David Jackson, ‘Edição *Princeps* d’*Os Lusíadas*’, in *Dicionário de Luís de Camões*, ed. by V. A. e Silva (Alfragide: Editorial Caminho, 2011), pp. 327-334 (p. 327).

¹⁹ Jackson, *Camões and the first edition*, pp. 24-5. Coutinho, pp. 573-4.

²⁰ Strictly, the Brasilien-Bibliothek der Robert Bosch and the Ateneu Comercial do Porto are private libraries, but are listed here because these are institutions.

Italy – Naples. Biblioteca Nazionale, Napoli — 1 exemplar

Portugal

Coimbra:

Universidade de Coimbra, Biblioteca Geral da Universidade — 1
exemplar

Guimarães:

Sociedade Martins Sarmento — 1 exemplar

Lisbon:

Academia das Ciências de Lisboa — 1 exemplar

Biblioteca Nacional de Portugal — CAM. 1P

— CAM. 2P

— CAM. 3P

— CAM. 4P

— CAM. 11P²¹

Oporto:

Ateneu Comercial do Porto — 1 exemplar

Vila Viçosa:

Casa de Bragança — 2 exemplars

Spain – Madrid. Biblioteca Nacional de España — R-14207

— R-14208

UK

London

British Library — C.30.E.34

²¹ The information that CAM. 11P is a copy of the 1572 edition comes from Rodrigues and was overlooked by others. Apparently, some of the initial and final folios of this copy come from the 1597 edition, causing it be catalogued among other copies of this edition.

— G.11285

— G.11286

Oxford

Bodleian Library — Antiq.e.P.1572/1

USA

Austin

Harry Ransom Humanities Research Center, University of Texas — 1
exemplar

Cambridge, MA

Harvard University Library — Port 5215.72

— Port 5215.72.5

— Port 5215.72.7

— Port 5218.72.3

New York

Hispanic Society of America — 1 exemplar

Providence

John Carter Brown Library, Brown University — 1 exemplar

To the list above, the following can now be added:

Brazil

Rio de Janeiro

Biblioteca Nacional — C,29,29 (ex.2)

Portugal

Ponta Delgada:

Biblioteca Pública de Arquivo de Ponta Delgada — Cofre 32 RES

(BPARPD) - JC103

Switzerland – Cologne. Bibliotheca Bodmeriana, Fondation Martin Bodmer — 2

exemplars

UK

Oxford

Wadham College Library — A7.24

USA

New Haven

Beinecke Rare Book & Manuscript Library, Yale University — 1

exemplar

The Yale copy is a recent acquisition.²² The Ponta Delgada copy, in Azores, and the two Swiss copies, however, seem to have passed totally unnoticed. This is also the case with the Wadham College copy, which was not yet known in 2009, when Thomas Earle published a census of early printed Portuguese books.²³ The second copy at Biblioteca Nacional, Rio de Janeiro, has not been recorded either and it was with great surprise and delight that we discovered it there.

In his list of copies dated 1572, Jackson also includes three facsimiles published in 1898, 1939 and 1972; none of them state which copy is being reproduced.²⁴ Based on the

²² Prof. Jackson has very kindly shared with us a revised version of his 2003 study, which now includes the Yale University copy. A facsimile of this copy is available at <<https://brbl-dl.library.yale.edu/vufind/Record/3435554>> [accessed 15th March 2019].

²³ Thomas Foster Earle, *Portuguese writers and English readers* (Oxford: The Oxford Bibliographical Society, 2009).

²⁴ *Os Lusíadas de Luiz de Camões*, preface by Theophilo Braga (Lisboa: [n.pub.], 1898).

Os Lusíadas de Luís de Camões (Porto: Lello e Irmão Editores, 1939).

Os Lusíadas de Luis de Camões, preface by Hernâni Cidade (Lisboa: Imprensa Nacional, 1972).

comparative tables from his 2003 study, the 1898 and 1939 facsimiles could simply reproduce originals which are now in libraries, as they lack any specific trait. The 1972 facsimile has a specific combination of headings although, having looked at the facsimile itself, we would at least entertain the possibility that its editors merely “corrected” the headings on ff. 148^r and 160^r. The facsimile is very clean, without any marginalia, ex-libris or mark, which is unusual for these books. It is known that some facsimiles remove or edit what are perceived as imperfections, offering an “ideal” image rather than an actual reproduction: the 2007 facsimile of the IHGB copy is an excellent example of a high degree of editorial intervention. Therefore, at this time and until evidence to the contrary, the three originals behind these facsimiles are not being counted as three unknown copies.

During these investigations, some important Portuguese libraries were also contacted. The earliest copy of *Os Lusíadas* in the Biblioteca Pública de Évora lacks the title page. We have not inspected it, but it is catalogued as a copy of the 1597 edition. The information that the Biblioteca do Palácio Nacional de Mafra holds a copy appears to be just rumours and was denied in correspondence by Ms Teresa Amaral, librarian. The Biblioteca da Ajuda once had a copy dated 1572, but it was taken by D. Manuel II around 1928 and is currently one of the two copies at Fundação Casa de Bragança, Vila Viçosa.²⁵

Jackson dedicated a specific study to the 1898 facsimile which confirms that the original reproduced has not been identified: Kenneth David Jackson, ‘Uma edição fac-similada d’*Os Lusíadas*, 1572 o caso das páginas trocadas’, in *Gramática e Humanismo: actas do Colóquio de Homenagem a Amadeu Torres*, ed. by Miguel Gonçalves et al., 2 vols (Braga: Altheia, 2005), II, pp. 409-418.

²⁵ The Biblioteca da Ajuda, however, does have two manuscripts of interest to Camões’s scholars, shelf-marks BA 46-VIII-39 and BA 46-VIII-40.

The latter is a commentary to *Os Lusíadas* by Fr. Marcos de S. Lourenço, who was active in the first half of the seventeenth century. On this manuscript, *vide* Isabel Almeida et al., *Os Lusíadas*

Finally, Agudo mentions a copy kept in the Museu do Caramulo, in the Viseu district.²⁶ Ms Elisabete Rodrigues, Secretária Geral at the museum, has been contacted, according to whom the museum has no copy of *Os Lusíadas* and would not have been able to sell legally any item after the date of Agudo's article. This brings the known library copies to thirty-eight.

3.2 The private copies

The question of the privately-owned copies is much more challenging. Firstly, these change hands with greater frequency, making it difficult to trace them. Secondly, collectors can be more resistant to academics. In the nineteenth and twentieth century, various lists were published: some were more extensive than others, and some listed past and present owners. This investigation project is crossing information between these academic publications and auction catalogues. The results obtained so far have not been conclusive. The ownership history of certain exemplars is very clear whereas others remain obscure, yet eventually this may help to form an idea of how many copies still exist overall.

At this stage in the investigations, it has been possible to collect clues of at least ten copies in the hands of private bibliophiles. This means that the total number of surviving copies may indeed be around fifty copies, possibly a little beyond it. Of these private copies, Jackson offers facsimiles of two from the private collection of the Brazilian bibliophile José Ephim

de Luís de Camões. Comentados por D. Marcos de S. Lourenço ([n.p.]: Centro Interuniversitário de Estudos Camonianos, 2014).

The former appears to be an autograph manuscript by Manuel de Faria e Sousa, of what was eventually published as *Lysíadas Lvis de Camoens, Principe de los Poetas de España*, ed. by Manuel de Faria e Sousa, 4 vols (Madrid: Juan Sanchez, 1639). This manuscript has yet to be studied. Thanks are due to Cristina Pinto Basto for these pieces of information.

²⁶ Agudo, p. 3.

Mindlin.²⁷ After Mindlin died in 2010, his ‘brasíliana’ collection was donated to the Universidade de São Paulo, but the copies of *Os Lusíadas* were kept by the family and then apparently sold. Unfortunately, their current owner or owners have not yet been located.

Apart from these, we have identified five different people who currently possess copies and we were able to analyse one copy and negotiate access to a second. Most collectors do not want their identities to be revealed, therefore publications arising from this project will not disclose their names. Instead, each copy is ascribed a name, such as ‘Private #1’, ‘Private #2’ and so on. In the ultimate publication, readers will have access to photographs and the full analysis of such copies, just as any other library copy which is, fundamentally, what matters from a scientific point of view.

4 Material documentation

When gaining access to a copy, the concern is to document the widest possible set of physical characteristics. Before and independently from the analysis of paper, eleven separate topics are documented:

1. The library and the shelf-mark, if available.
2. The binding: Including the general appearance, materials used, any inscriptions, gilding and gaufering on the paper edges, dimensions of front and back board, the sewing, any signs of re-sewing, patterns of sewing; an estimated date is attempted.
3. A physical description: including the total number of leaves, and dimensions in centimetres taken from the preliminary folios.
4. Collation: As a quarto in eights, the collation formula of *Os Lusíadas*, 1572 is $\pi^2 A-Y^8 Z^{10}$, meaning an unsigned bifolium (π) with title page and *alvarás*; forty-four sheets of paper signed A to Y, each gathering with two sheets; and gathering Z with two sheets

²⁷ Jackson, *Camões and the first edition*, p. 24.

and a half. Under this heading any missing sheets in a particular copy are recorded, if applicable, and any additional sheets, including flyleaves.

5. Title page: Whether left or right pelican and matching columns and plinth, or a combination of these elements.

6. Foliation errors: Any error detected on how folio numbers were printed. Handwritten foliation is not included here.

7. Headline errors: Any errors in the headlines.

8. The nature of the copy: Whether the exemplar represents one or the other putative edition or is a hybrid copy.

9. Any annotations: Including any *ex libris* marks, annotations and inscriptions in ink, pencil or stamps, comments, numbering of stanzas, handwritten corrections to the text, handwritten folio numbers. We try to be as comprehensive as possible, distinguishing different hands, languages used and, if possible, transcribing them. If the copy is heavily annotated, we then indicate which folios are annotated.

10. Preservation state: A description of the preservation or damage suffered, including signs of restoration work. The paper colour is also described.

11. Any facsimiles: A list of facsimile editions available, if applicable.

The picture offered by these simple – yet fundamental and unrecorded aspects – will give future scholarship much firmer grounds to work on. Rather than merely listing the existing copies, this opens a series of potential research avenues, for a variety of scholars, on *Os Lusíadas*. How solid or delicate these copies are, whether they are in need of restoration, which textual versions or variants they have, what clues are available for future research on the ownership history of specific exemplars.

Certain aspects, such as conservation, binding and annotations, have a bearing on studying the books after they left the press. This project is less interested in these, but they are recorded because access to rare books is difficult to negotiate and because what is visible today may not be visible in future. Thus, a consistent documentation of all copies is very much to be

desired. Other aspects are directly related to book production, especially the different textual versions, which are not yet fully understood or documented.

Filling out this questionnaire also has a more immediate, practical purpose. It guides the subsequent analysis of paper. A damaged or fragile exemplar poses its own challenges, which must be taken into account.

Finally, these material aspects also hold their own unpredictable surprises. The copy at the Academia Brasileira de Letras is bound in an old limp parchment binding, with paper pastedowns. By casting light against it we discovered a hidden manuscript. Clearly, a sheet of a parchment manuscript was recycled to make this binding, with a blank surface on the outside and the text now concealed by the paper pastedown. The text, which will be edited in future, is in Latin.

Having consulted twelve copies now, this investigation is still in its early stages. Ultimately, all the thirty-eight library copies will be analysed as part of this project, and as many private copies as possible. This documentation will then be published as part of a future monograph.

5 Definitions

Before moving on to the analysis of paper, a few definitions are in order for the non-bibliographer. *Os Lusíadas* is *quarto in eights*, which is to say that each gathering is composed of two sheets, each folded twice. To help printers and binders, some pages have *signatures* on the bottom, which indicates the sequence of text. The first sheet of the first signed gathering is A₁-A₂-A₇-A₈, whereas the second sheet is A₃-A₄-A₅-A₆. The next gathering would be signed B, with the same numerical sequence, and so on, until gathering Y. Gathering Z is exceptional in that it has an additional half sheet. Before fol. 1, there are two unnumbered folios, generally referred to as π^1 and π^2 , featuring the title page and the *alvarás* (licenses issued by the Crown and the Church allowing the book to be printed). This π gathering is also a half sheet. A

complete copy of *Os Lusíadas*, therefore, has forty-six sheets and two half sheets. Throughout this study sheets are referred by their signatures, rather than folio numbers.

In that period, paper was made from rags of cloth, and the papermakers worked in pairs, alternating two moulds. A *mould* is a wooden frame structure with fine wires in the middle. To say that two sheets are of the same type, means that both came from the same mould. The goal of the investigation is to reconstruct all of those moulds, from the evidence of the existing paper only, without ignoring a single mould nor fantasizing non-existent moulds. The method consists in looking at the features impressed from the mould in the paper, grouping like with like and distinguishing those that are different. In this analysis, three features are relevant: the *wire-lines*, the *chain-lines* and the *watermarks* (Fig. 1).

<Insert Figure 1>

Fig. 1 — Folio 93 illuminated with light sheet (Wadham College copy):

Chain-lines (horizontal); wire-lines (vertical) and watermark.

Reproduced by kind permission of the Warden and Fellows of Wadham College, Oxford.

6 The study of paper: methodological considerations

6.1 Watermarks

At the beginning, this investigation focused on watermarks. This is how notable scholars such as Charles-Moïse Briquet and Allan Stevenson identified paper and how many codicologists and bibliographers still conduct their investigations today.²⁸ However, it soon became evident that this approach is insufficient.

²⁸ Charles-Moïse Briquet, *Les Filigranes*, 4 vols (Paris: A. Picard & fils; Geneva: A. Jullien, 1907; repr. Amsterdam: The Paper Publications Society, 1968). For Briquet (I, “Introduction”, p. 2), four features from the mould were transmitted into the paper: format, chain- and wire-lines, watermarks, the latter being “le plus importante”.

Firstly, whereas it is technically possible to deduce paper types from watermarks, it is far more intuitive to identify previously defined paper types from watermarks. The following watermarks come from two different moulds, but their differences only become apparent after careful examination (Fig. 2).

<Insert Figures 2a, 2b>

Fig. 2 — Watermarks: Wadham, A7.24 (S₅) and (Z₆).

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In order to conclude that such similar images stand for two watermarks, one needs to collect a good sample of images and compare them attentively. This was in itself an obstacle, for the initial investigation started with two copies, which offered a limited sample of images. The watermark on the left occurred only three times; the watermark on the right occurred once. The problem could be circumvented by traveling to other libraries to analyse and photograph more copies but this means greater costs and more time abroad.

Secondly, not every difference in watermarks is relevant for identification of different moulds. In the process of making paper, the mould would gradually deteriorate, including the

Stevenson has many important studies on paper, among which:

Allan Stevenson, 'New Uses of Watermarks as Bibliographical Evidence', *Papers of the Bibliographical Society*, 1 (1948/1949), pp. 149-182.

Allan Stevenson, 'Watermarks Are Twins', *Studies in Bibliography*, 4 (1951/1952), pp. 57-91.

Allan Stevenson, *Observations on paper as evidence* (Lawrence: University of Kansas Libraries, 1961).

For a general view on the development of Stevenson's ideas:

Paul Needham, "Allan H. Stevenson and the Bibliographical Uses of Paper", *Studies in Bibliography*, 47 (1994), pp. 23-64.

wire design that makes the watermark. The resulting watermark variations in sheets that come from the same mould are known as watermark states. The following two heart watermarks may be an example of this, as they show slight variations on their tips, however, they apparently come from the same mould, to be demonstrated shortly (Fig. 3).

< Insert Figures 3a, 3b >

Fig. 3 — Wadham, A7.24 (H₁) and (I₇).

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Thirdly, and more importantly, not every sheet of paper will necessarily have watermarks. In fact, in any copy of *Os Lusíadas* analysed for this study, half of the sheets do not have them. Thus, a study based on watermarks would be partial at best.

6.2 Chain-lines

The solution came by adopting a methodology proposed in David Vander Meulen's study of editions from the 1700s of *The Dunciad*.²⁹ Vander Meulen's method is well known among paper specialists and was included, for instance, in the guidelines published by the International Association of Paper Historians, which seeks to establish international criteria for recording paper features.³⁰ Its focus is on the study of unwatermarked paper, but it can equally be used for watermarked sheets. By measuring the distances between chain-lines, one can reconstruct the original mould. This method is extremely rigorous and, logistically, the height of simplicity: one needs only a ruler and a source of light. This project relies on a portable light sheet equipment,

²⁹ David L. Vander Meulen, 'The Identification of Paper without Watermarks: The Example of Pope's *Dunciad*', *Studies in Bibliography*, 37 (1984), pp. 58-81.

³⁰ IPH Standard 2.1.1 2013, section 3.2.4, available at

<http://www.paperhistory.org/Standards/IPHN2.1.1_en.pdf> [accessed 15th March 2019].

which can be disassembled, and weights approximately 100grms. In the libraries visited it was possible to connect it to an ordinary power plug and analyse every sheet in the book.

The original method entails placing a ruler on the book and measuring where the chain-lines occur starting from the middle of the sheet to the outside, in this case, from the top of the page to the bottom. The method was adapted slightly by measuring from the bottom to the top and, rather than noting the measurements cumulatively, each distance was measured separately. The ruler must preferably be placed near the gutter, where watermarks occur. Because each folio is a quarter of a sheet, one need not measure every folio, but a sample, as long as this sample represents always the same part of the mould. This is perhaps the main difference between watermarked and unwatermarked sheets.

Any sheet can be placed on the press in four different positions. A watermark orientates which quarter of the sheet one is looking at. For instance, if a sheet is analysed, a small watermark (e.g. the heart in fig. 3) may occur at any of H₁, H₂, H₇, H₈, a larger watermark (e.g. the hand in fig. 2) would extend between either S₃-S₆ or S₄-S₅. Thus, by measuring the folio with the watermark – or the same half of the watermark – one knows that the same quarter of the sheet is measured, and the measurements of the other folios are redundant. In the analysis of the two heart specimens of fig. 3, the measurements were approximately | 3.0 | 2.65 | (W/M) 2.9 | 2.9 | 2.7 | 2.9, in which

- | stands for chain-line;
- the number represents the measurement in centimetres;
- (W/M) locates the relative position of the watermark within the sequence.

This contrasts with other sheets, which also have a heart watermark, but whose measurements are | 2.8 | 2.8 | (W/M) 2.6 | 2.9 | 2.8 | 2.7, distinctive enough to postulate a different mould.

With unwatermarked paper, one cannot control *a priori* which quarter of the sheet is being analysed. Therefore, two consecutive folios are measured either before or after the

stitching. This part of the method is important: if only half of the sheet is being measured, the sample has to be either A₁-A₂ or A₇-A₈ (external sheet), A₃-A₄ or A₅-A₆ (internal sheet).

Combinations such as A₁-A₈ or A₄-A₅ will give the same measurements for each pair because these are conjugate folios. Another note of warning is that chain-lines would not run perfectly in parallel on the actual mould, they bend and draw curves. Because the measurements come from the inner margin, it does not matter if one measures the left or the right side of the sheet, the difference in the chain-lines should be negligible. If one wishes to measure near the external margin, all four folios are likely to be necessary.

To say that this method is logistically simple, does not mean that it is easy, though. Firstly, it is time consuming, taking between two and three days to analyse a whole copy, depending on how well preserved or damaged the paper is. Still, it is faster, more accurate and fitting for *Os Lusíadas* than comparing watermarks. It allows one to process the data collected outside the library, but it produces a huge amount of data which needs to be considered carefully and individually. This project is less interested at present in publishing this data, and more with the results they can lead to, but it would be possible to start a database on early modern paper used in Portugal with them.³¹

6.3 Other factors

³¹ David Gants, 'Identifying and Tracking Paper Stocks in Early Modern London', *The Papers of the Bibliographical Society of America*, 4, 94 (2000), pp. 531-40, proposed a faster method of analysing chain-lines, but it relies on some specific software and photography, which is not possible for a project on *Os Lusíadas*. Gants is developing a database on a large sample of Jacobean paper where such a mass of information fits; the immediate purpose of this project, however, is just to establish accurately the mould of each sheet of *Os Lusíadas*. For its intended readers, therefore, measurements of every sample are unlikely to be of use.

There are also some challenges to be highlighted, for the secondary literature consulted is strangely evasive in some respects.

1. No two sheets of paper are identical. The technique for printing on hand-made paper involves damping each sheet when printing one side, letting it dry, and repeating the process to print on the other side. The damping and drying causes each sheet to expand and contract at different rates – not only in comparison with different sheets, but also when comparing different sections of the same sheet. Thus, the measurements of two folios are unlikely to be perfectly identical. A margin of 1mm for each chain space to contract and expand is a reasonable allowance. Watermarks help in identification, as they narrow down the list of possible candidates: a sheet with a heart watermark is compared with others with hearts, but not one with hand watermark. The technique employed here for identifying unwatermarked sheets focuses on distinctive chain spaces. For example, these three examples from the Bodleian copy are confusing:

A₁: |2.75 |2.7 |2.65 |2.65 |2.8 |2.6

E₁: |2.7 |2.6 |2.6 |2.6 |2.7 |2.6

H₂: |2.75 |2.6 |2.7 |2.7 |2.6 |2.55

With 1mm margin, these three folios could represent one, two or three moulds. The full measurements, however, clarify the question:

A₁: |2.75 |2.7 |2.65 |2.65 |2.8 |2.6; A₂: 2.55 |2.75 |2.8 |**2.45** |2.8 |2.6

E₂: |2.7 |2.6 |2.6 |2.6 |2.7 |2.6; E₁: 2.5 |2.7 |2.8 |**2.4** |2.8 |2.55

H₂: |2.75 |2.6 |2.7 |2.7 |2.6 |2.55 H₁: 2.6 |2.7 |**2.4** |2.7 |2.9 |2.4

Now it is clear, sheets A and E come from the same mould, and H is different. The chain space 2.4 in H₂ (in **bold**) cannot contract from 2.8 in A₂/E₁. Equally, 2.45 and 2.4 in A₂/E₁ (in **bold**) are small variations, but cannot be confused with 2.7 in H₁. With hindsight, one can appreciate that the last 2.4 in H₁ is too distant from 2.6 in A₂, while the penultimate 2.6 in H₂ is also too distant from 2.8 in A₁. The rule in unwatermarked paper is that the distinctive spaces – in both cases a 2.4 – serves to orientate oneself within the sheet, much like watermarks did.

2. The paper may be put in the press in different positions. When trimmed during binding, different chain-lines may be lost as a result. Thus, the simple sequence of measurements is not enough, one has to check whether two folios represent different sections of a sheet. For example, in the Wadham copy, the following numbers were recorded:

Q₅: |2.3 |2.2 |2.3 |(W/M) 2.4 |2.3 |2.2 |2.4

R₃: |2.3 |2.4 |(W/M) 2.4 |2.3 |2.3 |2.4 |2.1

Superficially, these seem different moulds, but thanks largely to the watermark, one deduces that the full sequence was approximately (|2.3) | 2.3 | 2.4 | (W/M) 2.4 | 2.3 | 2.3 | 2.4 (|2.1), in which Q₅ had lost a chain-line at the top, while R₃ had lost it at the bottom.

3. Conservation state is important. Although the secondary literature consulted seems to deal with relatively old books, scant or no attention is paid to conservation. For a project which seeks to document every surviving copy, one faces the best and the worst as far as preservation is concerned. Occasionally, folios are torn precisely on the inner margin, where the watermark once was. In one copy, questionable ‘restoration’ work has obscured much of the paper features. Sometimes it is not possible to measure chain-lines on the inner margin and another area must be used. In a particularly challenging case, the IHGB copy has lost folios A₁, A₈, and only A₇ and a tiny fragment of A₂ survive. It was possible to identify the paper type even for this sheet, but the standard three days of work was not enough.

For these reasons, this investigation now records measurements from the four folios of at least one exemplar of a sheet and, for the purpose of subsequent identification, the sample of one folio (watermarked) or two folios (unwatermarked) is taken.

6.4 Reproduction of paper features

The final issue on method relates to how best to document the paper features. Having identified the different types and looking ahead, the ultimate publication should convey to its readers all the necessary details on the paper types. The mere measurements of chain-spaces are not enough; this project endeavours to reproduce in images the necessary paper features, allowing

independent analysis by other scholars and not just those working on *Os Lusíadas*. One could find any Portuguese or European book printed in the 1570s in a library distant from a copy of *Os Lusíadas* dated 1572 and wonder whether the paper types there also appear in the first edition of *Os Lusíadas*. It would be convenient if these potential scholars could conduct their studies without having to travel to the nearest library with a copy of *Os Lusíadas*, arrange access to it and go over this same procedures.

The difficulty in the mechanical reproduction of paper features is balancing cost and simplicity with accuracy. The simplest and cheapest are tracings. Briquet's catalogue of watermarks, in 1907, was not the first of its kind, but is regarded as a landmark in paper studies, offering tracings of watermarks in actual size with some information on chain- and wire-lines (Fig. 4).

<Insert Figure 4>

Fig. 4 — An example of Briquet's tracings.³²

In the image above, there is a heart watermark framed between two vertical chain-lines and tight horizontal wire-lines on the right. The number 4225 refers the reader to volume 1, where Briquet locates the book, which was printed in 1577. Yet tracings are not considered accurate enough to allow paper identification. In fact, as Stevenson has remarked, Briquet often lumps together under one tracing different watermarks. Briquet's work does the opposite of what is sought here: it serves as a huge index to most libraries and archives in Western Europe (excepting Iberia, Britain and Scandinavia), so that the scholar can travel to the relevant libraries and find there examples of specific types of watermarks.

Stevenson who revolutionised paper studies, advocated beta-radiographs. These are true to size, perfectly accurate and only reproduce paper features and not the ink on the page.³³ The

³² Briquet, III, Cœur, 4203-4225, image 4225, (no page number).

technique's cost though is known to be 'prohibitive'. Worse still, it seems to be a technique in extinction. The British Library, Harvard and Brown Universities were contacted and none offers beta-radiography. The Bodleian once did, but it is no longer available.

A cheap and accurate technique was developed by Thomas Gravell in the 1970s by placing some photosensitive paper called Dylux under the sheet being analysed. Dylux itself is no longer produced today, it was possible to recreate the technique with another type of photosensitive paper, called Sun Print Paper, sold online for under £10 for children's artwork. While this has not been tried on a copy of *Os Lusíadas*, experiments were conducted with paper from less valuable books from the Bodleian collection (Fig. 5).³⁴

<Insert Figure 5>

Fig. 5 — Experiment with photosensitive paper.

As seen in the image above, it is possible to record watermark, chain- and wire-lines with this method, although the quality of the details is not very high. However, it was abandoned for it is highly impractical. Firstly, the experiments were not very successful with artificial light. The example above required taking the book out of the library and exposing it for some minutes directly under the sun. Secondly, unlike Dylux, this paper requires water to develop. These two aspects combined means that a full set of images of the more than eighty paper types found in *Os Lusíadas* is unlikely. It is also worth noting that the paper specimen used in this experiment was unusual. It was fine, in the sense that one could see the watermark with the naked eye, without the need to cast light against it. Experiments with thicker types of paper revealed that the exposure time in the sun was higher and the quality of the paper features

³³ Stevenson, *Observations on paper*, p. 12. Also in Stevenson's introduction in Briquet, I, "Supplementary Materials", "Introduction", p. *17.

³⁴ Thanks are due to Dr Paul W. Nash in helping with this experiment.

recorded was lower. This specimen was also a blank sheet, which never occurs in *Os Lusíadas*, whereas the method records anything in the sheet's surface, including the printed text.

Some libraries offer digital photography with light sheet equipment and some libraries allow readers to take their own photographs. Indeed, this project is currently recording every paper type with photographs and whereas this may one day be a solution, it remains an imperfect one. Unlike beta-radiography or even tracings, photography does not remove ink interference and is not true to size. The envisaged monograph would then offer one photograph of each paper type, even though some sheets are unique to specific copies and therefore subject to the relevant library's rules.

Tracings have also been adapted to accommodate the needs of this project. Below is an example of how each paper type is currently being documented in addition to photography (Fig. 6).

<Insert Figure 6>

Fig. 6 — A tracing of a full page of *Os Lusíadas*.

With millimetrically ruled tracing paper, an image of a full page is drawn. The focus is on the chain-lines and their distances. The watermark or part thereof is recorded, and this tracing gives its exact position within the folio. The drawing is always taken from the recto and records if it is the mould or felt side of the paper, the folio number and the shelf-mark of the exemplar.

It must be emphasized that the technique for making these tracings poses no risk for the books. The pencil lines seen in the image above were not drawn when the tracing paper was in contact with the book. First, the light sheet under the folio to be copied is turned on and the tracing paper is carefully placed on top of the folio. With a pencil, light and faint dots are made, one on the right and one on the left of each chain-line, as well as around the paper edges. The

tracing paper is removed and the lines are then drawn with a ruler on the table. The book is not in any way affected by this procedure.

For private study, this full-page drawing has been most useful. It records the angles of the chain-lines and, occasionally, some tracings were placed over a sample in the libraries to confirm identification. Whether this type of documentation would be useful for other scholars researching paper so as to justify its publication is something we very much hope to learn from colleagues.

7 The workshop of António Gonçalves

Beyond studying paper for its own sake, what contributions does paper analysis bring to the understanding of *Os Lusíadas*? This is what will be answered in this final section. To this end, two tables were compiled below, cataloguing the paper types found in eight copies.³⁵ Each column represents one exemplar and each row represents a full sheet. Table 1 and Table 2 represent two distinctive sections within these copies.

<Insert table 1>

<Insert table 2>

³⁵ To date, the following copies were analysed: two in Oxford, three in London, five in Rio de Janeiro, two in Paris. This study discusses more closely one copy from London (British Library C.30.E.34), the Oxford and the Brazilian copies, which are typographically identical. They have the pelican facing right and are associated with the traditional designation Ee. When referring to their printer, it will be taken at face value that they came from António Gonçalves's workshop.

From sheet A₁-A₂-A₇-A₈ to L₁-L₂-L₇-L₈ António Gonçalves largely used paper from four different moulds. Two have similar watermarks, hearts 1 and 2, and two are unwatermarked, types 1 and 2. That they should come in pairs is to be expected since paper, as discussed at the beginning, was produced in pairs of moulds. Within this section, sheet I₃-I₄-I₅-I₆ is peculiar, in that it concentrates in isolation another pair of watermarked papers (hands 1 and 7).

From L₃-L₄-L₅-L₆ to O₃-O₄-O₅-O₆ Gonçalves used mainly one new stock of paper with a pair of watermarks, hands 2 and 3, but he also used some leftovers from the initial purchase. The present study does not feature a detailed table for sheets P₁-P₂-P₇-P₈ to Z₃-Z₄-Z₇-Z₈ nor for the half sheets π^1 - π^2 and Z₅-Z₆, because there are still doubts about the identity of a small number of sheets and it seems prudent to avoid publishing inaccurate data. Yet the overall picture is clear: in the last section, from sheets P to Z, there are at least twenty-two different paper types, plus some leftovers from the first and second purchase.

A ninth copy, Bibliothèque nationale de France (RES-YG-74), follows this same pattern throughout, except for one sheet, K₃-K₄-K₅-K₆, which is typographically distinct from the equivalent K sheets in the other eight copies. The other three copies consulted – Bibliothèque nationale de France (RES-YG-38) and British Library (G11285 and G11286) – have a different set of paper types. Typographically, these three copies are radically different from the eight copies analysed in the tables.

Regarding the edition analysed here, António Gonçalves was probably setting and printing *Os Lusíadas* in an orderly fashion, from beginning to end. Not only because there are three distinct sections with regards to paper types, but also because section two has leftovers from section one and section three has leftovers from sections one and two. Although it is logical to print books in a linear manner, they were not always printed in this way. Compositors, as much as medieval scribes before them, could coordinate themselves to work in different parts of the book simultaneously, thus saving time. So, we are glimpsing here the work of a small team and probably just one press.

Gonçalves – or whoever was financially responsible for the edition – seemingly made an initial investment which covered him for ten gatherings and a half or twenty-one sheets. In the next stage, the second paper purchase covers seven sheets. It is telling that twenty-one is a multiple of seven. In the first purchase, which combines two stocks, the proportion of unwatermarked to watermarked is roughly 2:1. Therefore, seven is a key number: each purchase of paper would print three gatherings and a half, or seven sheets, in this whole edition of *Os Lusíadas*. This is the first clue on how paper was being sold in Lisbon in the early 1570s and may potentially reveal the size of this edition.

Before moving to the third part, it must be recorded that the two pairs mixed in the beginning are of very different qualities. In an extremely well-preserved copy – in ABL – these two pairs have exactly the same creamy-white colour. This is what Gonçalves would have seen in 1572. But in two copies – the Bodleian and C,29,29A in Biblioteca Nacional do Rio de Janeiro – the watermarked pair oxidised to a deep brown, whereas the unwatermarked paper oxidised less intensely. This is obvious as the sheets are often side-by-side, so they have been exposed to the exact same conditions. The reason probably lies in the composition of the vegetable fibres themselves, although chemical investigation has not been conducted to verify this hypothesis. These paper types could either come from two different paper mills or one paper mill was deliberately producing paper stocks of different qualities.

The last third of *Os Lusíadas* encompasses nine gatherings and a half, or nineteen sheets, printed on twenty-two different paper types, both watermarked and unwatermarked. It is not unusual for a book to mix many paper types. Stevenson mentions a number of titles which mix around fifteen watermarks and, in an extreme case, even fifty different types. But a book that concentrates an enormous variety right at the end is definitely peculiar. Indeed, some types are unique to one specific exemplar and they tend to occur in this part of the book.

The possibilities for this phenomenon are not numerous. The least likely would be that Gonçalves was buying paper in very small quantities. A second possibility would be that there was more demand for paper within Gonçalves workshop. Gonçalves completed another three

titles in 1572 and if the format of at least one of these was compatible with the size of paper used in *Os Lusíadas*, he could, conceivably, share the paper across different books. However, if he were to cost *Os Lusíadas* individually – either to pass this over to an editor or to calculate his profit – he would probably avoid sharing paper from different titles.

The most likely explanation seems a lack of paper supply. It may have been momentarily difficult to acquire paper in the correct format in Lisbon. Alternatively, by the end Gonçalves may have been running out of funds, if he is assumed to be the printer as well as the publisher, that is, financially responsible for the books he printed. For a printing workshop equipped with presses and type the single main investment at the beginning of a book was the purchase of paper. In short books, the investment pays off quickly, whereas long books would probably rely on income from earlier titles, as the printer can only sell the book once all its parts are complete. If Gonçalves was preparing several books at this moment, without receiving enough income from previous publications, he may have been using any leftover paper to hand just to complete an ambitious project. If so, this would be a humble, if heroic beginning of what was to become the most important text in Lusophone literature.

8 Conclusions

It is always a challenge to write something new about texts which are many centuries old and, in this case, so widely read and discussed. Yet António Gonçalves's workshop may well be an enormous mine of research questions.

This investigation of the first edition of *Os Lusíadas* is very different from earlier works in that it is open to a dialogue with a range of other disciplines. It also takes a fresh look at this prince of books.

A proper census of the surviving copies is a much needed and shamefully absent page in the history of *Os Lusíadas*. There is much to thank those libraries which have supported this investigation and showed interest in it. And we do hope that more libraries and especially

private collectors will realise its importance and the great responsibility that lies in their hands to advance scientific work.

The concern expressed here with conservation and description is also timely. The putative signature by Camões in the IHGB copy – which could be the only surviving example of the Poet’s handwriting – seems to be fading, when compared to images of a few decades ago. The second copy of the Biblioteca Nacional in Rio de Janeiro was laminated, probably in the 1960s, following the technique developed by William Barrow, a now much-questioned procedure. The book would have been exposed to an enormous amount of heat. Today its folios are trapped in a pellicle which is beginning to brown and may eventually take over the whole book, rendering it illegible. When the librarians were questioned, they announced that they may attempt to reverse this ‘restoration’, by applying large doses of chemicals. How the little clues that ground our detective-like investigation would emerge from this bath is a question we would rather not think of.

The documentation of the exemplars will also serve those who are interested in researching the history of these books as objects, the early modern readership of Camões and the circulation of *Os Lusíadas* in Portugal and abroad.

Our methodological concerns may serve scholars working with paper in other areas and periods. Another goal of this investigation is to allow and promote the analysis of other printing workshops in early modern Portugal, and our techniques may be used by other investigators.

As for us, our attention rests with António Gonçalves, this *éminence grise* behind Camões and his famous epic. The question of paper, as hopefully shown here, is not ‘just’ the question of paper, but of the whole production of *Os Lusíadas*. Typographical and material evidence should complement each other. This approach could define the number of editions, the textual variants and possibly the manuscript tradition behind the printed books. Yet even more, it may be possible to trace the concrete history behind the production of this book. This is not mere historical curiosity: whether the poem was printed in a large or small edition, in deluxe presentation for exclusive customers or cheaply accessible, for a close circle of readers or the

wider audience, for commercial purposes or not, all of this has a significant bearing on the text's original perceived value. Gonçalves printed another eight titles between 1571 and 1573. Had he different presses at his disposal? Had he just one or many compositors working on *Os Lusíadas*? Was he sharing the paper from *Os Lusíadas* with other books? Will the paper found at the end of *Os Lusíadas* reappear in abundance in earlier books? Could one map the paper mills and trade routes available for Gonçalves in the early 1570s? Did Gonçalves deliberately buy paper of two different qualities when he started his work or was he, to use a Lusophone idiom, 'comprando gato por lebre'? Compelling questions which only now, after four hundred and forty-five years, are beginning to be asked.

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