



Digital Critical Editing, Digital Text Analysis,
and Charles R. Maturin's *Melmoth the Wanderer*

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Table of Contents

Introduction.....	1
Chapter One - Digital Scholarly Editing and the Legacy of the Sociology of Texts.....	15
Chapter Two - Creating a usable digital critical edition of <i>Melmoth the Wanderer</i>	59
Chapter Three - Data: XML and JSON.....	99
Chapter Four - Digital Text Analysis for Digital Critical Editions.....	118
Conclusion.....	159
Appendix A - Edition Paratexts: A biography of Charles R. Maturin, a summary of <i>Melmoth the Wanderer</i> , and a critical introduction to <i>Melmoth the Wanderer</i>	169
Appendix B - Topic Modelling.....	226
Bibliography.....	239

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Abstract

This thesis considers why critical editions have not established themselves in the digital medium to the same extent as documentary editions and offers some potential ways to remedy this. The written thesis is accompanied by a digital critical edition of Charles R. Maturin's *Melmoth the Wanderer*, which acts as an example of and case study for the arguments set forth in the written thesis. This edition can be accessed at app.melmoththewanderer.com or at <https://pacific-harbor-2932.herokuapp.com/>.

Documentary editions have found a secure position in the digital medium because they have a solid pre-digital theoretical foundation in the work of Jerome McGann and D.F. McKenzie; digital documentary editions have also become part of the narrative of the rise of the digital humanities. Digital critical editions, however, have neither of these advantages. Editors must instead work to create digital critical editions that can not be easily achieved in the medium of print. This thesis proposes two potential ways that this can be done. Firstly, digital critical editions can benefit by being designed as usable editions that aid users in accessing the different parts of the text. This involves a slight reconception of the critical edition in the digital medium where the job of the editor is not the establishment of a single, stable text but is the establishment of multiple views of the text. Secondly, digital critical editions will also benefit from increased interaction with the field of digital text analysis. This can be achieved in a number of ways: by making the edition's data available in multiple formats for analysis, by topic modelling a corpus of texts contemporary to the edition's text and making visualisations of those topic models available to the user in the edition's paratexts as a novel way of contextualising the edition text, and finally by allowing users to interrogate the results of those topic models while they browse the core text of the edition.

Introduction

This thesis considers the ways in which digital critical editions might distinguish themselves from digital documentary editions and from equivalent print critical editions. In recent years, digital scholarly editing has begun to evolve into a practice whose primary output is the digital documentary edition. As Elena Pierazzo has put it, it is “a truth universally acknowledged that documentary editions have found a very welcoming home in cyberspace” (“Digital Documentary Editions and the Others”). The *Samuel Beckett Digital Manuscript Project*¹, *Jane Austen’s Fiction Manuscripts*², and *The Digital Vercelli Book*³ are just a small sample of what the documentary edition can achieve in the digital medium. In comparison, however, digital critical editions are rare.⁴ Tara Andrews has argued that this is because digital critical editions are rarely conceived as anything other than large amounts of text arranged hypertextually. In the early days of the Web, such as when Jerome McGann published his “The Rationale of Hypertext”, such hypertextual editions were novel for both editors and readers.⁵ The times and the technology, however, have moved on. Digital critical editions now need to offer users something more than hypertext and something more than can be achieved in an equivalent print critical edition. This thesis therefore considers how digital critical

¹ <http://www.beckettarchive.org/>

² <http://www.janeausten.ac.uk/index.html>

³ <http://vbd.humnet.unipi.it/beta/#104v>

⁴ See Peter Robinson, “Towards a Theory of Digital Editions”, Tara Andrews, “The Third Way”, and Franz Fischer, “All texts are equal but...” for discussions on the rarity of digital critical editions in comparison to digital documentary editions. All three have felt the need to defend the digital critical edition against the dominance of the digital documentary editions. For a rebuttal of to these arguments see Pierazzo, “Digital Documentary Editions and the Others”

⁵ McGann consciously placed his article within a timeline of the history of textual criticism, alongside W.W. Greg’s highly influential “The Rationale of Copy-Text” and G. Thomas Tanselle’s *A Rationale of Textual Criticism*. Pierazzo did the same with her “A Rationale of Digital Documentary Editions”.

editions can potentially be reimagined in the digital medium in order to address the apparent issues with their establishment. The written thesis is accompanied by a digital critical edition of Charles R. Maturin's *Melmoth the Wanderer*, which acts as an example of and case study for the arguments set forth in the written thesis. The edition can be accessed at app.melmoththewanderer.com or at <https://pacific-harbor-2932.herokuapp.com/>. The written thesis also elaborates on the methodology and technology behind the edition.

This thesis argues that digital critical editions can gain new impetus by being designed as usable editions. A usable edition positions readers as users and facilitates access to the different parts of a text more than can be achieved by simple reading and searching. This involves a slight reconception of the critical edition in the digital medium. A critical edition is typically defined as an edition that alters the linguistic text of a work in some way, whether that be because the editor believes the intentions of the author have not been served by past editions or because errors have entered the text across its transmission history. This critical edition, however, alters the text of *Melmoth the Wanderer* structurally rather than linguistically. This is done by establishing not a single version of a text but by establishing multiple views of the text. The purpose of this is to aid the user in accessing different parts of the text.

This edition reorganises the text of *Melmoth the Wanderer* in order to make it more usable and accessible. It does this by establishing multiple views of the novel. The goal here is to give the user different ways of discovering the different parts of the text. The edition does not privilege the linear reading of the text but gives the user ways of dynamically reorganising the text within the browser. This is achieved by designing the edition as a single-page web application that leverages the power of DOM

manipulations. By being designed as a single-page web application, the digital critical edition can generate these different views dynamically within the browser and, by manipulating the DOM, this can be done without requiring the user to reload any data or send any page requests. This edition of *Melmoth the Wanderer* offers the user a number of different ways of viewing and sorting the text. These views are 1) a view based on a search term of the user's choice, 2) a continuous scrolling view, 3) a chapter by chapter view, 4) a tale by tale view, and finally 5) a thematic view made possible by topic modelling the text. Each version or view of the text is established as a text by the editor and in the case of the search term view, by the user. These different views of the text are created dynamically in the user's browser and are not simply hypertextually linked collections of texts.

The first view, the search term view, differs from the traditional way of searching a text. The kind of searching facilitated by this edition is more accurately described as sorting. Every view of the text comes with a "sort" box at the top of the page. When a user enters a term into the sort box the text on the page will dynamically reorganise itself so only the paragraphs that contain that term appear on the page. Each instance of the term is also instantly highlighted on the page. This improves on traditional searching in an edition because the user is never directed away from the text and towards a page of search results. Instead, everything happens instantly in the browser with no need to load a new page or send any requests to the server. When the user's term is deleted from the sort box the text on the page dynamically reverts to the complete text. This saves a user significant time in searching for a term or a phrase in the novel. In this way the distance between user and knowledge is drastically reduced. It also offers a novel way of looking at a text. Every time a user enters a sort term a new

text is instantly generated. Simply by looking at this new text the user can ascertain how often this term occurs in the complete text by how long or how short this new text is.

The second kind of view is the more traditional complete scrolling view. This loads the complete text into the browser. This improves on a traditional scrolling view of a text by the inclusion of a sidebar that dynamically responds to the user's movement through the text. As the user scrolls through the text, the sidebar will update in real-time in order to inform the user where in the text they are currently located. *Melmoth the Wanderer* is a long text and it is easy to lose knowledge of your position in text when you do not have the benefit of a physical print copy while reading. When using a physical print copy of a text the user can instantly ascertain their position in the text by the amount of pages on either side of the page they are currently on. A print text may also contain information at the top of the page that informs the reader which chapter they are currently reading. This edition of *Melmoth the Wanderer* achieves this functionality in a way specifically designed for the digital medium.

Instead of simply offering a complete scrolling view of the text, this edition also offers a chapter-by-chapter tab view. The complete text is still loaded into the user's browser when they access this view but only one chapter at a time is shown to the user with the rest being hidden until the user clicks on one of the tabs at the top of the page. Because the text of each chapter has already been loaded into the DOM, but hidden in the browser, moving between the different chapters is instantaneous. Again this dramatically reduces the distance between the user and the different parts of the text. A small amount of time is required in order to load the view initially but once that response has been fully received, no more server requests or responses are required. This significantly improves the usability of the edition over a similar edition that hides

the different parts of the text behind hypertextual links that require the user to send a new request and receive a new response every time they want to access a different part of the text. If a user does not have to load any new data when they want to access a different chapter, however little time that might actually take, it makes the user's work easier as it allows them to focus on their own research goals. The elimination of loading times after the initial data has been loaded prevents users from being drawn away from these goals and prevents distraction.

The fourth view is a tale-by-tale view and this operates in the same way as the chapter-by-chapter view. *Melmoth the Wanderer* takes the form of a number of different tales. These tales are contained within one another like a Russian doll. This makes the text fractured and confusing. This edition takes the text of each of these tales and combines their different parts so that the user can access a complete view of each tale instantly. For example, the "Tale of the Indians" is split in the novel into a number of different parts. This is because this tale contains two further tales that occur at different points in the "Tale of the Indians". This edition improves upon a print edition by combining the different parts of the tales thereby facilitating users wishing to study one of the tales in isolation from the others. This does mean that a completely new version of the text of *Melmoth the Wanderer* has been created, one that has not existed historically. This may be a problem for a print edition that can only offer one version of a text but no such problem exists in this edition. This is because the original version of the text still exists in both the complete scrolling view and the chapter-by-chapter view. The user is made aware of this by having the different versions of the text only a click away at all times.

The final view is a thematic view and is very different from the other kinds of views. This view allows the user to sort the text according to 25 different themes or topics. When a user clicks on one of the topics every paragraph associated with that topic will be instantly loaded into the user's browser. This allows users to instantly access the parts of the text that interests them most and that are most suited to their own research goals. This also aids the user in making connections between the different parts of the text. If the user clicks on the "Reading and Writing" topic, for example, among the results will be the reading of Old Melmoth's will in the frame narrative, Stanton reading a book he finds in the asylum during his own tale, Monçada reading his brother's letter, Donna Clara reading a letter from her husband, and a description of the reading habits of the Mortimor children. If the user clicks on the "Religion" topic they will find passages regarding the funeral of Father Olavida, a conversation about religion between Antonio and his father, and a conversation about the religions of the world between Isidora and Melmoth. Such a feature allows users to make connections between these different parts of the text and aids interpretation in a way not achievable in an equivalent print edition. This view was achieved by splitting the novel into paragraphs and then running a topic modelling program over those paragraphs. This program returned the 25 topics and each paragraph was paired with one of those topics. This was then represented in the encoding of the text.

Further, this thesis also argues that digital critical editions can benefit from being designed as responsive web apps. A responsive website is one that is designed to work as efficiently as possible on all kinds of screens and devices, from mobile to desktop. This edition was therefore designed to work on a variety of screen sizes. This is necessary in modern digital critical editions because the editor does not know how a

user will be accessing the edition. By designing an edition to work optimally in all kinds of scenarios, an editor can ensure that the largest possible audience of users will be catered for and can avoid a situation where users are unable to access or use the edition because it does not work on the device they are using to access it.

This thesis also argues that the digital critical edition will benefit from increased interaction with the field of digital text analysis. This thesis and edition aim to achieve this in a number of ways. Firstly, the use of the text in digital corpora is encouraged and facilitated by making the text available in various formats: JSON, XML, and plain text. This is important because different scholars have different needs when it comes to data formats. This can depend on the programming language being used and on the format of the rest of their data. By offering the text of the edition in these formats, a large number of potential requirements is catered for.

Secondly, a corpus of sixty novels contemporary to *Melmoth the Wanderer* was created and topic modelled. Network visualisations of these topic models were then included in the edition's paratexts as a way of offering users a context in which to view *Melmoth the Wanderer*. These allow users of the edition a distinctive way of viewing the kinds of things Irish writers were writing about during this period and how these other novels relates to *Melmoth the Wanderer*. For example, *Melmoth the Wanderer* is located on the outside of these networks indicating that Maturin, with this novel, was writing in a different way and about different topics to his contemporaries. These visualisations are included in the paratexts so that the user can investigate the network of novels themselves and come to their own conclusions about Irish writing in this period. A small corpus of gothic novels was also constructed in order to show users where *Melmoth the Wanderer* figures among gothic novels by Radcliffe, Lewis, Walpole, and others. A

network visualisation of the novel's tales is also included in order to offer users an insight into how the different tales relate to each other. These visualisations offer a different kind of context than is usually included in an edition's paratexts. The visualisations of the topic models of the corpora of Irish novels, in particular, packs a lot of information in to a single image. This is more information than can be commented on in the actual text of the paratext and so users are free to download these images and inspect them for themselves.

Thirdly, users have the option of sorting the text of the novel according to the terms generated as part of these topic models. This allows users to interrogate the results of the topic models thereby bridging some of the gap between qualitative and quantitative analyses of literature. A common criticism of the quantitative analysis is that obscures the specifics of the texts under examination. This edition aims to address this criticism by allowing users, while browsing the text, to view the data from the topic models and to organise the text according to the terms found in the topic model. This allows users to move from the general results of the topic model to the specifics of *Melmoth the Wanderer*. By adding this functionality to the edition, users can not only browse the edition in a unique way but they can also interrogate the topic model. They do not have to accept the results of the model without question but can instead see where each of the terms returned by the model occurs in *Melmoth the Wanderer*. They can then discover for themselves if the patterns suggested by the model actually do exist in the novel or if there are in fact errors in the model.

Finally, as mentioned above, topic modelling was also used in the creation of the thematic view of the text. This view utilises quantitative analysis in an original and distinctive way. Instead of applying quantitative analysis techniques to a corpus of

different texts, *Melmoth the Wanderer* is treated as a complete corpus by itself on the level of the paragraph. In this edition, therefore, quantitative analysis is not only used to offer a context in which to view *Melmoth the Wanderer* but is also used as an actual tool in the creation of a critical edition. This use of quantitative analysis for the creation of a tool of qualitative analysis points to a potential future path for the creation of digital scholarly editions.

This thesis also acknowledges that digital critical editions should not completely abandon their roots in print and should be informed somewhat by the great achievements of print critical editions. N. Katherine Hayles has suggested that within the digital humanities in general there is a need to adopt approaches that can “locate digital work within print traditions” and “print traditions within digital media”, but “without obscuring or failing to account for the differences between them” (*How We Think* 7). If a rift were to form between print-based and digital scholarship, writes Hayles, there would be significant consequences for both sides. For this reason, part of this thesis consists of some original paratexts created specifically for this edition that would typically accompany an equivalent print scholarly edition. These are an author biography, an account of the initial publication of the novel, a summary of the novel, and a critical and historical introduction to the novel. These traditional scholarly apparatuses are still needed in the digital space because the work of a scholarly editor has always been to create a threshold across which users can approach the core text of the edition. If digital critical editors or digital scholarly editors in general neglect this particular aspect of their editions then it is the user who will suffer. If we want to users to trust our actual editions then they need to be surrounded by reliable and

comprehensive scholarly research and this should not change simply because the medium of publication has changed.

*

The reasons why documentary editions are an established genre of digital scholarly editing and digital critical editions are not is partly due to technology. Documentary editions need to contain large amounts of high-quality images and this is easily achievable in the digital medium but not in print. These editions have the added bonus of preserving the material and documentary record of works. There is, however, another reason that digital documentary editions are well-established. This is because they have a solid pre-digital theoretical grounding. This is thanks to the work of Jerome McGann and D.F. McKenzie who, in the 1980s, spearheaded a shift in textual criticism. McGann and McKenzie's work moved the focus of textual criticism away from authoritative and stable editions to editions that recognise both that texts are the products of multiple agents and influences and that the materiality of texts is an important factor in their reception. Such editions would need to represent multiple versions of texts and of their documents. These editions were not easily achievable in print and so editors looked to the digital medium as a solution to this problem. This shift in editorial theory and the digital solutions to the problems it provoked has been absorbed into the narrative of the rise of the digital humanities. Matthew Kirschenbaum, for example, has called this the "silver-bullet" of first-wave digital humanities (Hayles, *How We Think* 25). This is a problem for digital critical editions because it positions the digital documentary edition as the priority within the digital humanities. Chapter one considers these issues. It is split into three parts. The first looks at the practice of scholarly editing in general and defines its aims and procedures and, most importantly, establishes some important

definitions of terms. This part looks at the work of influential textual critics such as McGann, Shillingsburg, Greetham, and Tanselle and at how they have defined scholarly editing and its theories and practices. The second part of this chapter looks at the editorial shift of the 1980s when editors began to move away from establishing definitive editions of texts and towards acknowledging the multiplicity and diversity of those texts. The third part of this chapter considers more recent debates in scholarly editing. In particular, it looks at debates surrounding the differences between digital documentary editions of digital critical editions and the prevalence of the documentary over the critical in the digital medium. This chapter also looks at how the particular editorial and textual example of *Melmoth the Wanderer* relates to the theories and debates discussed and at how this novel is a suitable case study for a digital critical edition.

Chapter two looks at one way that digital critical editions can be improved in light of the arguments put forward in chapter one: by creating editions that are usable and not merely readable. The first part of this chapter looks at the concept of textuality in the digital medium. It discusses hypertext and asks if it is enough for a digital critical edition to be a series of linked paratexts or if such an edition simply gives the illusion of interactivity. This chapter also briefly considers the act of reading in online environments. There have been numerous books, articles, and reports in recent years that have bleakly stated that the World Wide Web has affected our ability for “deep reading”.⁶ Such “deep reading” may not be even possible in an online environment where we constantly bombard with information and where we are distracted by each and every hyperlink and search box present on our screen. This is a major issue for

⁶ See Hayles, “How We Read”, and Carr, *The Shallows*.

digital critical editions. One potential response to this problem is to make editions usable rather than simply available and to allow users to find the information they are looking for as quickly and intuitively as possible. The second part of this chapter therefore discusses how this edition of *Melmoth the Wanderer* was designed as a usable edition. It describes the multiple views of the text offered by the edition. This part of chapter two also relates the methodology behind the creation of the digital critical edition of *Melmoth the Wanderer*. The edition was built using the MEAN stack collection of JavaScript technologies (MongoDB, ExpressJS, AngularJS, and NodeJS) and this chapter describes each of these technologies and shows how they were utilised as part of the edition. This chapter also looks at the design of the edition and describes how Twitter Bootstrap was used to create a clean and functional responsive design for the edition.

The third chapter looks at the encoding process. Because of the technologies used the textual data of this edition is required to be in the JSON data format while the de-facto standard for encoding data in the humanities is XML. This chapter therefore looks at XML and the Text Encoding Initiative and how XML is used in the creation of digital scholarly editions. It describes the purpose of the TEI and the problems that the guidelines were designed to address. It shows the different ways in which editions can be created out of TEI-compliant XML encodings. The chapter then moves on to discuss some of the issues and problems that arise from creating a JSON encoding of the text of a digital critical edition. JSON is increasingly becoming the data format of choice for web developers and this chapter considers whether this will become a problem for the digital humanities. The TEI recommend a particular XSL transformation for getting JSON data from an XML encoding but there are problems with such transformations,

primarily JSON's inability to deal with mixed content as effectively as XML. This chapter discusses this problem and also evaluates JSON's usefulness in dealing with overlapping hierarchies in humanities texts. It also considers the database model of textuality and asks if JSON can be used to realise the encoding of a text in this way.

The fourth chapter looks at another way in which digital critical editions can find a place for themselves online. This is through the establishment of distant reading as part of the discourses that surround the text. This chapter therefore looks at the theory behind distant reading and at the work of one of the method's most prominent practitioners: Franco Moretti. This part of the chapter argues that by analysing a corpus of texts contemporary to the edition text using distant reading techniques and then by offering the results of that analysis through visualisations contained in the edition, digital critical editions can offer users new and interesting contexts in which to view the edition text. The second part of this chapter describes the theory and method behind the process of topic modelling and looks at some practical examples of topic models created as part of this thesis. It gives an overview of the process of topic modelling and looks at how different approaches can be taken in generating topic models. It also looks at the different approaches that can be taken in interpreting the results of a topic model and at the subjective factors that influence the application of labels to topics. This chapter also describes the results of the two topic models generated using MALLET and the corpus of Irish novels constructed as part of this thesis. It also looks at the results of two further topic models: one generated from the novel's tales and another generated from a small corpus of gothic novels. These topic models are then used in the edition paratexts to show, among other things, how "time" was a popular topic among Irish writers in the early-nineteenth century and how *Melmoth the Wanderer* is different from the majority

of Irish novels contemporary to its composition. From here, this chapter looks at how the results of these topic models were included in the edition using a tool created with AngularJS as well as how the data for the “thematic view” of the novel was generated from a topic model of the novel’s paragraphs.

There are two appendices to the thesis. These collect a number of different original paratexts created for the digital critical edition. The first gathers together the more traditional paratexts that accompany the edition. These are a biography of Maturin, a summary of *Melmoth the Wanderer*, and a critical introduction to the novel. The second appendix gathers together the materials, both text and image, generated through topic modelling the text of the novel and other related texts. Such paratexts, both traditional and experimental, are integral to scholarly editions and provide valuable context for the user. They communicate vital critical commentary on the novel and assure the user that this edition is the result of serious and reliable scholarly research. The biography details Maturin’s life and works. The summary is a brief description of the tales and main plot points of the novel. The largest paratext is the critical introduction to the novel. It looks at *Melmoth the Wanderer*’s status as an Irish novel, its status as a gothic novel, and at the historical context in which the novel was written. The second appendix details a number of different topic models and visualisations for those topic models: a topic model of the tales of *Melmoth the Wanderer*, two topic models of 60 Irish novels contemporary to *Melmoth the Wanderer*, and a topic model of a number of gothic novels.

Chapter One

Digital Scholarly Editing and the Legacy of the Sociology of Texts

The 1980s saw a shift in editorial theory. Prior to this, textual criticism, upon which the practice of editing is based, had been primarily concerned with the concept of authorial intention and with the attempt to define systematic and scientific methods that would help an editor to establish a text that best represented an author's intentions. The work of Jerome McGann and D.F. McKenzie, however, attempted to shift the editor's focus away from the intentions of an author and on to the wider range of individuals, groups, and processes that were responsible for the creation of a text. Further to this, their work suggested that physical documents are just as important for the creation of meaning as the linguistic texts that those documents contain. McGann's work was a challenge to modern textual criticism as it had been practiced at the time; McKenzie's work was a challenge to the field of bibliography. Together, their approaches are known as "the sociology of texts". This editorial approach had a particular influence on the development of a particular kind of digital scholarly edition: the digital documentary edition. Further, this approach to editing has also been used as part of the narrative of the rise of the digital humanities, as it offers a credible theoretical foundation for the creation of digital scholarly editions, usually in the form of documentary editions. However, this absorption of a traditional practice of textual criticism into the digital humanities has led to tensions. In particular, the rise of the documentary edition in the digital medium has been viewed by some textual critics as being at the expense of the digital critical edition.¹

¹ See Robinson, "Towards a Theory of Digital Editions" and Fischer, "All texts are equal"

Matthew Kirschenbaum, in an interview with N. Katherine Hayles, has called this shift in editorial theory the “silver-bullet” of first-wave digital humanities (Hayles 25).² Elsewhere, Kirschenbaum cites the editorial shift of the 1980s as one of the reasons why English departments are hospitable environments for digital work. In his article, “What is Digital Humanities and What’s It Doing in English Departments?”, Kirschenbaum writes that it was the “pitch-perfect convergence between the intense conversations around editorial theory and method in the 1980s and the widespread means to implement electronic archives and editions very soon after” that aided the establishment of the digital humanities within English departments (“What is Digital Humanities”). What is interesting about Kirschenbaum’s argument is the importance it gives to editorial and bibliographical work in English departments when, historically, such work has been seen as of lesser importance in these same departments when compared to critical or interpretative work. D.C. Greetham, in an essay published in the same collection as Kirschenbaum’s, argues that there is a prejudice in academic institutions against bibliographical and editorial work. This essay by Greetham, “The Resistance to Digital Humanities”, is a follow-up to an earlier article of his, “The Resistance to Philology”, which was prompted by the discovery that in some “highly regarded academic institutions, a scholarly edition, bibliography, or textual study counted as only one *half* of a ‘real’ book in promotion and tenure decisions” (“Resistance”). Greetham’s concern in this later essay is that this prejudice not only survives in such institutions but is now accompanied by a prejudice against digital work and that textual critics, since they now work primarily or at least partly in

² Kirschenbaum is an example of a textual critic who is primarily associated with the digital medium. His book *Mechanisms: New Media and the Forensic Imagination* is a seminal work on the concept of digital textuality and received the prestigious Richard J. Finneran Award from the Society for Textual Scholarship (STS) in 2009.

the digital medium, are confronted with a “double whammy” of prejudice or a “two-fold suspicion” by the general community of humanists (“Resistance”). The relationship between digital textual work and the wider work of English departments is not as clear as Kirschenbaum indicates it to be.

A more forceful indication of the unclear status of textual work within academic institutions, and within the digital humanities themselves, can be seen in a paper delivered by Peter Robinson at the *Social, Digital, Scholarly Editing* conference in 2013. In this paper, Robinson confrontationally declared that “digital humanists should get out of textual scholarship: and if they will not, textual scholars should throw them out” (“Why Digital Humanists”). Robinson argues that digital humanists make the mistake of believing that the needs of textual scholars and of readers can be perfectly served by digital archives that present the complete documentary and material record of a text and that the reader is better served by this instead of an editor making a judgment about a text. These digital archives are seen to be justified by the editorial theory of McGann and McKenzie, whose critiques of modern textual criticism and bibliography paved the way for editions that contained as much information about a text or work as possible. Peter L. Shillingsburg’s theoretical model of the digital scholarly edition, the “knowledge site”, is perhaps the best example of a model for a scholarly edition founded on McGann and McKenzie’s theories.³ Shillingsburg’s “knowledge site”, if realised, would contain every version of a text, as well as exhaustive amounts of contextual material, responses to, and adaptations of the text. Robinson argues, however, that readers will suffer if editors refuse to make decisions regarding the

³ See Shillingsburg, *From Gutenberg to Google*, for an introduction to his conception of the knowledge site.

presentation of a single, critically edited text and instead simply give access to the documents. In particular, Robinson has disputed Hans Walter Gabler's model of the digital scholarly edition, which Robinson believes to be preoccupied with the document to the detriment of the reader.⁴

Due to the importance of the sociology of texts for recent debates in digital scholarly editing, it is vital to understand the issues to which McGann and McKenzie were responding when they called for such a dramatic shift in the direction and focus of editorial theory. McGann, in particular, was calling for a rethinking of modern textual criticism because it was based on what he viewed as unsuitable theories from the related but separate fields of biblical and classical textual criticism. It is therefore important for digital scholarly editors not to repeat the mistakes to which McGann was responding by building digital editions that are informed by unsuitable theories. Even more than this, it is important for digital scholarly editors to build more than one *kind* of edition and not to position digital scholarly editions as a mere genre of editing. As Mats Dahlstrom has argued, the classification of the digital scholarly edition as a type of edition is debatable. He states that that traditional discussions in editorial theory identify the genre "as based on its epistemological foundations and theoretically based strategy" and not as based on "media form and publishing technology" (20).

The work of McGann and McKenzie and its influence on scholarly editing in the digital medium has led to a proliferation of digital scholarly editions based on the surviving documentary witnesses to a particular work. Editions that rely on faithful transcription of documentary and material sources for exact reproduction in a scholarly edition have been traditionally referred to as "diplomatic editions" and the act of

⁴ See Robinson, "Towards a Theory"

creating them as “non-critical editing”. The convergence of theory (the sociology of texts) and technology (the digital) has led to a resurgence in this kind of document-based editing. Elena Pierazzo has argued that diplomatic editions must be redefined in the digital medium in order to account for the fact that these editions are not “non-critical” but instead consist of the scholarly investigation of manuscript sources, the generation of various outputs from those sources, and the creation of tools for their display. She defines this new editorial object as the “digital documentary edition”.⁵ The rise in popularity of digital documentary editions has been a cause of concern for some textual critics who believe that it has been inhibiting the production of critical editions in the digital medium and that this does a disservice to readers who want access to a more stable text. It was exactly this kind of edition that prompted Robinson’s forceful paper at the *Social, Digital, and Scholarly Editing* conference.

There are many situations where McGann’s and McKenzie’s theories will be appropriate but the appropriateness of these theories should not be decided simply because an edition is being built in the digital medium. Pierazzo, in fact, agrees with this. She states that “[d]ifferent editorial frameworks may be suitable to different types of text or to different types of research questions” (“Digital Documentary Editions” 15). To simply argue for one kind of digital edition, whether that be documentary or digital, would be a mistake. This would be a error similar to the one to which McGann was responding: the application of inappropriate frameworks and methods for the editing of a particular text. But the dominance of one kind of edition in the digital medium is a very real danger when coupled with attestations that the editorial shift of the 1980s was a “silver bullet” moment for the digital humanities. Fashioning a narrative for the digital

⁵ See Pierazzo, “A Rationale of Digital Documentary Editions”

scholarly edition and digital humanities out of the editorial shift and the work of McGann and McKenzie will lead both to the danger of the creation of only one kind of edition in the digital medium and to tensions between textual critics and digital humanists. It is therefore vitally important to have a clear understanding of the editorial shift and to understand the issues that caused it to occur. It is only then that we can have a clearer view of how to apply these theories.

This thesis takes *Melmoth the Wanderer* as its case study in the application of these theories. This novel has had a relatively stable textual history. It has undergone no major revisions since its initial publication in 1820 and all subsequent editions have been based on the text of this first edition. The text of the first edition, however, was the result of a complicated process of composition and production characterised by a near-breakdown of relations between Maturin and his publisher, Archibald Constable. McGann and McKenzie would contend that an editor must consider such issues of production in the creation of a scholarly edition. The history of the novel's composition and initial publication is further confused by the fact that no original, authorial manuscript of the novel survives. A documentary edition cannot therefore be offered as a potential solution to these problems. How then can a non-documentary scholarly edition of this novel be created that that responds to the challenge of McGann and McKenzie? This thesis considers a potential solution to this problem.

This chapter will look at the editorial shift of the 1980s and will pay close attention to its two core texts, McGann's *A Critique of Modern Textual Criticism* and McKenzie's *Bibliography and the Sociology of Texts*. It will then look at how these theories informed debates in digital scholarly editing by looking at a particular instance of a model for the digital scholarly editing (Shillingsburg's "knowledge site"), and by

looking at recent debates surrounding critical and documentary editing in the digital medium. The final part of this chapter turns its attention to *Melmoth the Wanderer* and describes the fraught and torturous way in which it was composed and published. This final part suggests that any scholarly edition (digital or otherwise) of *Melmoth the Wanderer* needs to account for these issues, particularly in light of the editorial shift and the work of McGann and McKenzie. Firstly, however, this chapter looks at the terminology of textual criticism in order to enlighten and clarify the subsequent discussions on editorial theory. Such discussions are necessary because the terminology employed in textual criticism is at times both contested and confusing. In fact, the field of textual studies as a whole has been described by a leading textual scholar as a “discipline drowning in a sea of terms” (Greetham, *Textual Scholarship* 1). The following section looks at some examples of such terms and at how they have been defined by textual scholars.

1. Terminology

Terminology within textual studies can range from broad descriptors for the field as a whole, such as textual criticism and textual scholarship, to more specific terms used to describe practices such as descriptive bibliography and documentary editing. Further to this, there are recurring debates within textual studies about the definitions of terms such as text, work, and document. “Textual criticism” is usually used as the umbrella term under which scholarly editing of all kinds fall, but this is not always the case, and scholars can at times use the terms textual criticism, textual scholarship, and textual studies almost interchangeably. Scholarly editing itself as a term will be described in more detail below.

There have been some attempts at clarifying this terminology. Most notably, Greetham's book, *Textual Scholarship: An Introduction*, aimed to readjust and clarify the vocabulary deployed within the field of textual studies at the time of its publication in 1992. This book was written as a primer for scholars embarking on textual work. It was also an attempt at bringing a sense of coherence to what is a broad and complex activity. Greetham was concerned with the need for clarity in the use of terminology because he believed clear terminology to be necessary for the proper exchange of ideas, for the conducting of debates, and for the effective operation of the field overall. Greetham, in an attempt at clarification, chooses to employ the term "textual scholarship" in place of the more commonly used "textual criticism". In doing so, he creates a larger framework of scholarship and theory inhabited by the practice of criticism. Greetham defines textual scholarship as "the general term for all the activities associated with the discovery, description, transcription, editing, glossing, annotating, and commenting upon texts" (*Textual Scholarship* 2). Textual scholarship informs the practice of editing but textual scholarship, according to Greetham, is not simply "method or technique" (*Textual Scholarship* 5). Textual scholarship also incorporates editorial judgment and criticism, as well as historical and cultural learning. Textual criticism is then "that part of the discipline concerned with evaluating and emending the readings of texts" (*Textual Scholarship* 2). A textual scholar does not entirely equate with being an editor; editing is just one of the skills necessary for a textual scholar to acquire. A textual scholar needs to not only be skilled in the practice of the scholarly editing of texts but also needs to be concerned with theoretical issues related to the nature of texts and textuality as well as with the historical and cultural context of texts.

Textual scholars do not engage in editing in its broadest sense. The practice in which textual scholars engage is *scholarly* editing. In his “Introduction” to *Scholarly Editing: A Guide to Research*, a comprehensive collection of essays from participants in the field of scholarly editing, Greetham answers the question “What is scholarly editing?” as follows:

[S]cholarly editing is whatever produces those weighty tomes of authoritative texts accompanied by thick annotation, dense critical apparatus, lists of variants and historical collation, glossaries, and commentaries: in other words those volumes in which the text is thought to need the intervention of scholarship for better understanding.
(*Scholarly Editing* 1)

His definition expands in the following paragraphs. Scholarly editors are “historians of the text” and differ from publishers’ editors in that scholarly editors are primarily concerned with the past, whether that is the past of a year ago or the past of centuries ago. Greetham goes on:

[S]cholarly editing is thus the archeology of the text, although it is the sociology and the psychology of the text as well – for it is concerned not only with uncovering the layers of textual history as they accumulate one on another but also with examining the cultural and intellectual context of the text in its various appearances and with attempting to gain access

to the consciousness (and even the unconscious) of the author and the subsequent bearers of the text's message. (*Scholarly Editing* 2)

When Greetham here mentions "the subsequent bearers of the text's message", he has in mind the work of McGann and McKenzie who opened up textual criticism to admit consideration of the intentions of a number of different actors in the creation of texts, and not just the intentions of the author. Greetham offers one final expansion to his definition of scholarly editing in order to incorporate McGann and McKenzie's work: scholarly editing is concerned with both the linguistic and structural aspects of a text. By this he means that the editor should pay attention to both the words on the page and the text's physical embodiment in "book, page, and type or script" (*Scholarly Editing* 2), or what McGann described as the linguistic codes and the bibliographical codes of a text. Greetham adds that the emphasis placed on each of these codes will be different for every edition but, wherever the emphasis falls, "scholarly editing always combines hard, factual research and critical judgment" (*Scholarly Editing* 3).

G. Thomas Tanselle, in his contribution to *Scholarly Editing: A Guide to Research*, aims to define the field through its practices and methodologies. He agrees with Greetham regarding the historical nature of scholarly editing and argues that the "history of textual criticism and editing is really the history of shifting attitudes toward the role of human judgment in bringing present-day readers in touch with the past" ("Varieties" 16). The essential dilemma of this is whether scholarly editors should present the modern-day reader with a textual transmission from the past that they know to be inaccurate or if they should engage their own skills and sensibilities as editors in order to rectify these errors. Tanselle puts the situation simply by stating that the

“fundamental dichotomy is actually between making no alterations at all and making some (whether many or few) alterations” (“Varieties” 17). The first approach (making no alterations) can be best served by the production of “diplomatic editions” and the second approach (making some alterations) results in “critical editions”. A diplomatic edition is an edition that attempts to represent as much as possible the historical state of a particular manuscript. It does this by maintaining, for example, the original manuscript’s typography and layout. Diplomatic editions are not to be confused with “facsimile editions”, which are similar in that they aim to recreate the historical state of a particular manuscript but which are different in that this is achieved through imaging and the reproduction of those images within the edition.

A critical edition is one in which the editor intervenes in order to change the linguistic text in some way. This may be necessary because of what are perceived to be mistakes in the text that have crept in over time and in each iteration of the text or, in some cases, because the editor has believes that it is not the text that the author intended. Critical editions are named as such, according to Tanselle, because “their texts are the products of the critical judgment of editors” (“Varieties” 17). He says that an editor

whose goals is to reproduce a handwritten or printed documentary text is focusing on the text of a document, not on a work; an editor who incorporates alterations, however few, can no longer claim to be presenting the text of a document but is going beyond the document to focus on something else, normally a work intended at some past moment. (“Varieties” 17)

Here, Tanselle encounters a debate that continues today and one upon which he has written extensively: the differences between the text, the document, and the work in textual criticism and scholarly editing, and the relative importance of each of these concepts to the editorial task. The debate around these definitions has never gone away from textual criticism and has, in fact, become intensified by the change in medium. This is perhaps because of the removal of the traditional concept of materiality from the creation of digital scholarly editions and the relative ease at which diplomatic editions can be created and presented in the digital medium. Editions based on the documents of a work have experienced a growing popularity in recent years and, because of this, Pierazzo has argued for a redefinition of diplomatic editions to account for changing methodologies and outputs brought out by digital technologies. She suggests that such editorial objects should be termed “digital documentary editions”. Such editions have now become synonymous with digital editing while critical editions have in many ways failed to gain ground in the digital medium. There are many potential reasons for the popularity of diplomatic or documentary editions among digital scholarly editors. They allow editors to take advantage of new technologies for displaying documents and the novelty of having access to an author’s original manuscript may appeal to readers in a way that a traditional critical edition does not. Diplomatic editions also received a significant theoretical credibility from the work of McGann and McKenzie. Kirschenbaum, for example, credits a convergence of these theories with the technological means to implement those theories with an increased scholarly credibility for early humanities computing and digital solutions. The editorial shift is an important moment for digital scholarly editing and, potentially, for digital humanities. It is

important therefore to understand that moment in order to understand our current moment and the debates surrounding digital critical and documentary editing.

2. The editorial shift and the sociology of texts.

Tanselle argues that the dominant thread running through the history of textual criticism could be said to be the “search for properly ‘scientific’ methods” that can be followed in a systematic way in order to produce reliable editions of texts (*Scholarly Editing* 18). For Tanselle, scientific methods in textual criticism are typified by the creation of robust methodologies that can be applied to any text and the negation, so much as is possible, of editorial judgment within the process. This scientific tradition in scholarly editing is usually referred to as “Lachmannian” after Karl Lachmann, who attempted to formulate a systematic approach to editing of texts based on stemmatics. Stemmatics is the process by which an editor attempts to reconstruct a lost manuscript based on the relations between the surviving manuscripts. According to Tanselle, however, stemmatics in isolation is not a proper remedy to the editorial problem. He states that “the flaw in this approach was not the magnitude of the role played by editorial judgment but the lack of definition of a framework for its operation” and that “by definition critical editing exists to draw on the strength of human judgment as a means of correcting the defects of documentary texts” (*Scholarly Editing* 19). Tanselle’s reference to a “framework” for the operation of editorial judgment points to the fact that scholarly editors often rely on the establishment of models and frameworks for the effective construction of scholarly editions and that most scholarly editors will approach their task from a particular theoretical viewpoint.

These scientific and systematic approaches which aimed to create a framework for the creation of a scholarly edition were eventually challenged by the emergence of a different kind of approach to the editorial problem usually referred to as “the sociology of texts”. To contextualise the emergence of this newer approach it is important to understand that the scientific tradition in scholarly editing manifested itself in the twentieth century in two principal forms. In the first form, according to Tanselle, “quasi-mathematical or statistical methods are employed to analyze variants, in an effort to provide a mechanical underpinning for the establishment of stemmata and recensions” (*Scholarly Editing* 20). There were multiple examples of systems and methodologies throughout the twentieth century that aimed turn the editorial process into such a science. The second form was the “best-text approach” which tasks the editor with choosing a single documentary text as the best one for the purpose at hand and then following it in all cases except in ones that are deemed “obviously faulty” (*Scholarly Editing* 21). Tanselle states that this approach became “the dominant editorial procedure in the first half of the twentieth century” before being challenged by W.W. Greg in his seminal essay “The Rationale of Copy-Text”. “The Rationale of Copy-Text” is one of the most important documents in modern textual criticism and it offered the most popular framework for the scholarly editing of texts until the publication of Jerome McGann’s *A Critique of Modern Textual Criticism*. It is important to note that, in this book, McGann did not outwardly challenge Greg’s framework but instead challenged the way it had been appropriated by proponents of the theory of authorial intention. McGann’s book remains an essential document in textual criticism, as many of the issues it raised are still being confronted and debated today. It is also important to the field of digital humanities and to the practice of digital scholarly

editing. McGann's *A Critique of Modern Textual Criticism* may not have looked to the digital medium as a solution to the issues he was raising but it did provide a theoretical foundation to certain digital solutions once they arrived. The convergence of McGann's theory of editing and early digital technologies has contributed to the more recent popularity of documentary editions in the digital medium. McGann's reformulation of the editing project contained a shift in focus away from the establishment of a "best text" and on to the material objects within which texts were contained i.e. the documents.

In order to understand the development of digital scholarly editing, it is important to understand the theoretical environment within which McGann wrote his critique and the specific issues to which he was responding. This is because most digital scholarly editions have been and still are created along the lines that McGann was suggesting. These editions usually manifest themselves as archives of documentary materials related to a particular text or work, editions that Pierazzo has termed "digital documentary editions". The situation before McGann's critique was one where scholarly editors attempted to reclaim the "purity" of the author's original text. Texts were "impure" because they were transmitted to us over time through the process of copying and transcribing. The more time that has elapsed since the date of creation of the original text, the more likely it is that errors have been introduced into the text. Fredson Bowers, one of the leading textual critics of the twentieth century, claimed that the goal of textual criticism was "[t]he recovery of the initial purity of an author's text and of any revision (in so far as this is possible from the preserved documents), and the preservation of this purity despite the usual corrupting process of reprint transmission" (30). Authorial intention was key to the form of textual criticism that

McGann was critiquing but restoring the author's text, a text that may not have even existed in published form, was a difficult task. In fact, some textual critics believed that such a task could never be completed. James Thorpe, in *Principles of Textual Criticism*, wrote that "the ideal of textual criticism is to present the text which the author intended", before adding that "this ideal is unattainable in any final and complete and detailed sense" (50). In the 1980s, following the publication of *A Critique of Modern Textual Criticism*, there was a shift in textual criticism that began to move the focus away from definitive texts and towards the text as historical artefact:

those old goals in textual studies were flawed by too narrow a view, too abstract an idea, and too idealistic a vision of the editorial task. We are now told that the condition of textuality and the focus of scholarly textual interests lie in the artifacts of history, the surviving documentary texts. The new gods are the gods of diversity, multiplicity, process, and fluidity combined with a scrupulous observance of the limitations and integrity of surviving artifacts. (Shillingsburg, *Gutenberg* 2006)

However, when this revolution in textual studies occurred there was a problem: nobody knew what one of these new diverse and multiple scholarly editions would look like. Even within the forward to a new edition of McGann's *A Critique of Modern Textual Criticism* in 1992, D.C. Greetham was forced to ask: "is the scholarly editing of documents on McGannian principles feasible and what would such an edition look like?" (xvi). He also stated, however, that "[i]t is clear that there is always a chronological gap between the paradigm shift and its practical demonstration... It may

therefore that we will have to wait for another decade before editorial practice can catch up with editorial theory” (x-xi). Textual critics then looked to the digital medium for a solution to this problem and digital humanists (or computing humanists as they were known at the time) saw a way for humanities computing to offer a real solution to a very real problem in another field and thus help humanities computing on its way to becoming a fully-fledged discipline in the next decade. *A Critique of Modern Textual Criticism* is a vital text for establishing a connection between print and digital theories and practices of scholarly editing. The context since then has changed, however. While the digital medium offered a solution for the representation of one particular kind of scholarly edition (one that adhere to the principles espoused by McGann), we are now at a point where it is not only useful but *necessary* for *all* scholarly editions to be reproduced in the digital medium. There is a very real concern for the future of the critical edition in the digital medium and that digital scholarly editing will simply become a genre of editing with the documentary edition as its sole focus. This would mean that critical editions would be confined to print and, in an increasingly digitised and softwarised world, its position could soon become precarious.

McGann’s critique was specifically aimed at the editing of modern texts. He suggested that the problem with this practice lay with the fact that modern textual criticism is descended from and informed by the work of historical critics of biblical and classical texts. The methods, models, and frameworks of biblical and classical editing, however, are particular to those contexts and are derived from specific issues that arise from editing biblical and classical texts. It is out of the early work in classical textual criticism, writes McGann, that we get two of the three areas of interest in scholarly editing at the time of his writing: the theory of the critical edition, and the

theory of the copy-text (*A Critique* 23). McGann says a third area of interest opened up when the New Bibliographers (the “inheritors” of the Lachmann method) turned their attention to the editing of texts from the more modern periods. This area was the problem (or theory) of final authorial intentions.

According to McGann, the theory of the critical edition resulted from “the attempt by classical philologists to recover, or approximate by historical reconstruction, the lost original works of ancient authors” (*A Critique* 23). To do this, classical editors would gather together all the relevant textual versions of a particular work and systematically collate them. In carrying out this work, classical editors would develop a “textual stemma”, which summarised the relationships between the various versions of or witnesses to a text. This work also required the selection of a “copy-text”, which was an early text of the work that the editor chose as the basis for their own edited text. A critical edition results from the editor introducing a series of emendations and corrections into the copy-text. A textual apparatus, which records all of the textual variants encountered by the editor, would also be created and included within the edition. McGann describes this apparatus as one “which displays the ‘history’ of the text” (*A Critique* 24). At the time of writing of his critique, McGann claimed that this model of the critical edition “is now accepted, with minor variations and modifications, by all textual critics and critical editors” (*A Critique* 24). This meant that a system designed for the editing of classical texts was being used in all instances of critical editing.

This framework for the critical editing of texts was extended by W.W. Greg, who encountered specific problems in the editing of Shakespeare and other English authors of the early-modern period. Greg’s “A Rationale of Copy-Text” would become the one

of most influential works within the field of textual criticism but, while its findings and arguments were extended to many different types of scholarly editing, McGann points out that it was explicitly designed to deal with problems raised by the editing of Shakespearean and other early-modern English texts (*A Critique* 24). Greg's argument was that the classical theory of the best or most authoritative text had "really nothing to do with the English theory of 'copy-text' at all" (qtd. in McGann, *A Critique* 25). Greg's essay provided a framework that would allow the textual critic to "approach the problem of copy-text in a systematic way" (McGann, *A Critique* 25). This framework centred around Greg's distinction between the substantives of a text and the accidentals of a text. Accidentals are those textual features that effect a text's formal presentation, such as spelling and punctuation. Substantives are textual features that effect the meaning of a text. Greg argued that an editor who chooses a copy-text is only bound to it in regards to accidentals and that they are free to depart from it in regards to the substantives of a text. Greg's purpose in pinning his theory on these two definitions is, according to McGann, "to free the editor from the tyranny of the copy-text" (*A Critique* 27). An editor could chose a copy-text from which he could derive the accidentals of a text but was free to deviate from the copy-text in the case of substantive readings. McGann argues that authorial intentions would become associated with Greg's rationale by later textual critics, even though Greg himself makes no mention of authorial intentions (*A Critique* 27). Nevertheless, the theory of authorial intentions, writes McGann, "was formulated not merely as an explanation of the rationale of copy-text, but as a rule which would be asked to govern both the choice of the copy-text, and the choice of the textual version as well" (*A Critique* 28).

Greg's theory works quite well in circumstances where the author's original text is not preserved. However, scholarly editors of modern works are far more likely to have access to an author's original manuscripts or drafts. McGann writes that it was in response to this issue (the prevalence of original author's manuscripts) that the theory of final authorial intentions was added to the Lachmann-Greg framework (*A Critique* 30). Bowers was one of the main proponents of a modern textual criticism that incorporated the theory of final authorial intentions. Bowers' work was built upon Greg's rationale but McGann's issue was that, because of this, Greg's theory of copy-text would go on to be specifically associated with the theory of authorial intentions. McGann argued that those who defend a theory of copy-text linked with a theory of final authorial intentions fail "to emphasize that the problems being raised are historically peculiar to circumstances where critics have inherited an unprecedented amount of early textual material and related documentation" (*A Critique* 31). McGann claims that textual criticism of modern texts can, in many cases, follow the entire process of production from the point of view of many different individuals involved in the creation of a text, and not just the author. McGann was trying to re-imagine scholarly editing as a process that incorporates more than just the actions and intentions of an author, but the actions and intentions of a whole range of individuals and groups. An editor, according to this new framework, would be concerned with the author and their intentions but they would be equally concerned with the effect that publishers, editors, and printers have on the final material artefacts that are created at the end of the process of which all these people are a part. Further to this, an editor should also be concerned with the readers, reviewers, and critics of a text and the texts they might create in response to the original text. On top of all this, the material artefacts created at the different stages of production

should be of equal importance to a scholarly edition of a modern text and should be represented in the edition in some way. McGann, in a later book, would create a distinction between the linguistic codes of a book, which are the words on the page, and the bibliographic codes, which are the formal features of a document such as spacing and font. Meaning is generated, according to McGann, from the interaction between these two codes (*The Textual Condition*).

McGann attempts to preempt the arguments that such a radical reformulation of scholarly editing would provoke. He quotes Tanselle, a textual critic from the Greg school of editing, who previously claimed that the aim of a scholarly editor “is to establish the text as the author wished to have presented it to the public” (quoted by McGann, *A Critique* 32). McGann counters by pointing out that there are numerous situations where “many works exist of which it can be said that their authors demonstrated a number of different wishes and intentions about what text they wanted to be presented to the public, and that these differences reflect accommodations to changed circumstances and sometimes to changed publics” (*A Critique* 32). For McGann, the way that books were produced in the later modern periods means that editing texts from this period is very different from editing texts from earlier periods. This is because of a closer working relationship between authors and editors and publishers (McGann, *A Critique* 35). Our understanding of contamination in texts comes to us from the textual criticism of classical works but, as McGann argues, we cannot equate the work carried out by professional publishing houses and other such institutions with the work carried out by the scribes of ancient texts which may have dated from much earlier periods. McGann sums up the situation and his position as follows:

The original theory of the critical edition was developed to find and remove the contaminations inadvertently produced by those textual transmitters, and Greg's rationale represented a special variation on that theory, one designed to take account of the peculiar typographical conditions which prevailed before the eighteenth century. But the theory of final intentions, though a corollary derivative from the initial theory of the critical text and its special variant, has been asked to perform the same function under conditions which are structurally far different. The scholarly consequences of this hegemonic use of the theory of final intentions are far reaching, and they extend ultimately to the way we read and comprehend literary works, and not merely to how we edit their texts. (*A Critique* 35)

When the decreased importance of authorial intentions is combined with an increased importance in bibliographical codes, it results in a situation where scholarly editions now need to include vast amounts of documents. Again, this is the editorial problem for which editors looked to the digital medium for a solution.

McGann's *A Critique of Modern Textual Criticism* is an important work not only for scholarly editing but for humanities computing too. It solidified many of the arguments within textual criticism regarding textual authority and it offered an argument for a socialised concept of authorship and textual authority. This concept would result in a new kind of scholarly edition, one which would be difficult to represent in print but for which the digital medium could offer a potential solution. Ultimately, McGann's

challenge to the dominance of authorial intention in scholarly editing led to a more nuanced view of textuality. Texts, if you were to agree with McGann, were no longer the result of the work of a single individual but were the result of a process that included authors, editors, publisher, and printers, as well as readers, reviewers, and critics. A further facet of McGann's theory was that the materiality of texts was vital to obtaining an understanding of them. In creating scholarly editions that adhered to a McGannian view of textuality, one needs to consider not only the linguistic codes but bibliographic codes as well. Thus the digital medium offered editors an ideal space within which they could give practical realisation to McGann's theoretical model.

McGann's work on the bibliographical codes of a text built upon the work of McKenzie. In his Panizzi Lectures of 1985, McKenzie proposed a new framework for the study of bibliography that would reformulate approaches to the field much in the same that McGann reformulated approaches to scholarly editing. McKenzie argued that if medium and message are inherently linked then bibliography needs to be redefined in order to encompass the social processes that both affect and shape meaning, such as the production and reception of texts. If a medium affects a message, says McKenzie, then "bibliography cannot exclude from its own proper concerns the relation between form, function, and symbolic meaning" (10). This model was in direct opposition to the more scientific or "pure" bibliography espoused by the Greg-Bowers school of copy-text editing that had been widely accepted as the standard definition of bibliography up to that point. McKenzie offers the following quote from Greg, which he claims is the essence to any claim that bibliography is a scientific practice: "what the bibliographer is concerned with is pieces of paper or parchment covered with certain written or printed signs. With these signs he is concerned merely as arbitrary marks; their meaning is no

business of his” (qtd. in McKenzie 9). As with scholarly editing and the theory of the copy-text, Greg’s work was built upon by Bowers. Bowers believed that, in terms of bibliography, the physical features of a book were only significant in their order and shape. The symbolic meanings of these shapes were irrelevant in this kind of bibliography. McKenzie claimed, however, that such definitions of bibliography are no longer adequate and do not define what bibliography is and what it does (10). This was an attempt, in line with McGann, to move away from a systematic and scientific approach to textual criticism and bibliography. It was, again similar to McGann, an attempt to open up textual criticism to the fields of history and literary theory, from which textual criticism and bibliography had so often operated in isolation. For McKenzie, the greatest weakness of the Greg-Bowers school of bibliography is “its incapacity to accommodate history” (11). He argued that bibliography and textual criticism exist within the same sphere as literary criticism and literary history, with no borders separating them.

For McKenzie, the very future of bibliography was uncertain if it did not move away from systematic and scientific approaches and if it did not open its borders to other disciplines. These disciplines, such as history, had demands on the field of bibliography. As McKenzie stated in his lectures, historical meaning was dependent on the practice of bibliography. McKenzie wanted bibliographers to respond to this and recognise that in the study of bibliography “we move from the most minute feature of the material form of the book to questions of authorial, literary, and social context” (23). McKenzie argued that any definition of bibliography that reduces it to a branch of semiotics and the study of signs is too narrow and that the definition should now shift to that of historical bibliography, the study of the making and use of books and other

documents (11). His concern was that if bibliography operated simply as the study of signs then the field would be relegated and ignored; if it did not engage in a conversation with other disciplines then it would simply become excluded. What was at stake for McKenzie was the very survival of the field of bibliography.

McKenzie's basic principle of bibliography was that it "studies texts as recorded forms, and the processes of their transmission, including their production and reception" (12). He argued that bibliographers should no longer simply be concerned with books or signs on parchment but *all* forms of text. This would mean that bibliographers would have as their objects of study the entire textual record of humanity and not just texts found in print books. McKenzie had a very broad definition of text; he defined it to include "verbal, visual, oral, and numeric data, in the form of maps, prints, and music, of archives of recorded sound, of films, videos, and any computer-stored information, everything in fact from epigraphy to the latest forms of discography" (13). McKenzie was attempting to extend the horizons of the discipline to an impressive degree. And even further to including these new forms as their objects of study, McKenzie argued that bibliographers should be concerned with the way that form affect meaning (12). This is where McKenzie arrives at his sociology of texts. This reimagined discipline contrasts with "a bibliography confined to logical inference from printed signs as arbitrary marks on parchment or paper" (23). McKenzie employs the term "sociology" because it

reminds us of the full range of social realities which the medium of print had to serve, from receipt blanks to bibles. But it also directs us to consider the human motives and interactions which texts involve at every

stage of their production, transmission, and consumption. It alerts us to the role of institutions, and their own complex structures, in affecting the forms of social discourse, past and present. (15)

Such a wide definition of bibliography would undoubtedly appeal to digital scholarly editors. An emphasis on all kinds of texts coupled with an emphasis on medium would allow the digital medium to enter into bibliography as an equal to print. Further, a wider definition of the practice of bibliography would mean that scholarly editions would need to grow in size in order to account for the wider collection of surrounding paratexts that can act to inform the reader of the processes of production, transmission, and consumption in which the text operates and continues to operate. Digital scholarly editions can encompass a larger amount of text more efficiently than equivalent print editions. Digital scholarly editors would be further pleased by that fact that McKenzie, speaking in 1985, even includes “computer-stored information” in his definition of text (13). His work, along with McGann’s, would go on to offer scholarly editors working in the digital medium a significant theoretical foundation for digital documentary editions.

3. The Legacy of the Sociology of Texts

The majority of models, theories, frameworks, and debates surrounding digital scholarly editing are in some way influenced by this editorial shift. For example, Shillingsburg’s “knowledge site” brings the theories of McGann and McKenzie to their logical conclusion: a scholarly edition that contains every version of a work and every piece of information related to that work and its production and reception. A “knowledge site” would also focus on both the linguistic and bibliographic codes of a work.

Shillingsburg's book, *From Gutenberg to Google*, contains the blueprint for his model. It is chiefly concerned with defining an electronic "infrastructure" for text. Shillingsburg's model builds on the work of McGann and McKenzie by attempting to establish a theoretical framework for digital scholarly editions. Shillingsburg does this through the concept of "script acts". Shillingsburg claims that, in order for developers to create useful electronic editions, there needs to be a better understanding of such acts. When he uses the term "script acts", Shillingsburg is referring to every sort of act conducted in relation to written and printed texts, including every act of reproduction and every act of reading. An understanding of script acts is required, according to Shillingsburg, in order to see the full range of factors and elements that are relevant to an electronic representation of print literature and the reasons for doing so in the context of a knowledge site (*Gutenberg* 40).

The knowledge site is, in Shillingsburg's opinion, the form that all electronic editions should take, and these knowledge sites should be able to represent a number of different script acts: writing, reading, understanding, and production. The script act theory that Shillingsburg develops in his book suggests two unconventional premises about reading and writing. The first premise incorporates three ideas about written works. First, that a literary work is only partially represented in each of its physical manifestations (such as a text or a book). Second, that at any point in a work, the reader can handle more than one version of that work at a time. And third, that acknowledging the previous two ideas in unison can change and enhance the way we understand written texts. The second premise or concept is that script act theory does not try to deal with understanding whole books but rather with the processes (both temporal and spatial)

involved in reading “one word, phrase, sentence, paragraph, or scene at a time” (*Gutenberg* 50).

Shillingsburg’s elaboration on the concept of script acts ultimately leads him to a definition of an electronic edition of a work as an online knowledge site of “current and developing scholarship” that can also serve as a pedagogical tool in “an environment where each user can choose an entry way, select a congenial set of enabling contextual materials, and emerge with a personalised interactive form of the work” (*Gutenberg* 88). Shillingsburg divides his theoretical knowledge site into four sections: textual foundations, context and progressions, interpretive interactions, and user enhancements. Firstly, “textual foundations” deals with the various iterations of the work, either as a manuscript or printed book, as well as new critical editions of the text. The reader should also have access to variant forms of the text and emendations and ideally these should be linked from the main text. Shillingsburg states that the “textual foundations” section should also include information about the material production and manufacture of the physical manuscripts, proofs, and print books containing the text. Finally, this section should provide some sort of textual analysis involving information about any revisions made to the work at any stage in its history, why they were made, and what the repercussions of these changes are. Secondly, the “context and progressions” section of the site should contain a comprehensive amount of contextual information individualised for each stage of textual existence. This could include things like historical introductions, biographical information (for all those involved in the production of the text in any of its forms), explanatory annotations, verbal analysis, links to full text archives of letters and other ancillary materials, and any other social, economic, political, and intellectual material that relates to the text. This section could

also include a part dedicated to intertextuality i.e. the texts that influenced the main text or the texts that were influenced by it, and the sources that the author may have used. Shillingsburg also suggests that this section could contain some form of linguistic analysis and an explanation of unfamiliar words or phrases. Thirdly, “interpretive interactions” should deal with the reception history of the text i.e. reviews and criticisms, as well as any adaptations of the work. Finally, the “user enhancements” section should allow users to introduce new analysis markup to the texts, and to emend and create new versions by mixing historical variants or introducing new emendations.

The danger with presenting a reader with an environment within which they can discover and explore a substantial amount of information related not only to the text, but every single edition of that text is that a reader, especially a “non-expert” one, could simply be overwhelmed by so much information. The role of the editor should be to translate information into knowledge in such a way that the reader is not fatigued by overload. James Gleick has written extensively about the concept of information and argues that a “barrage of data so often fails to tell us what we need to know” (Gleick 403). Information does not guarantee knowledge; knowledge does not guarantee wisdom. For us to be able to keep up with all the information, we need “proxies and subcontractors” (Gleick 403). Information needs to be mediated before it has a chance to become knowledge and it is the editor’s job in a digital scholarly edition to either limit the amount of information presented to the reader or to organise it in such a way that it does not overwhelm the reader. Pierazzo, in defining the documentary edition, is partly concerned with “where to stop” when working in the digital medium. Potentially, a digital edition could represent every single script act related to a particular work but, as Pierazzo argues, “we must have limits, and limits represent the boundaries within

which the hermeneutic process can develop” (“A Rationale” 466). These boundaries can no longer be defined by the limits of the medium, as they were in print, but they must be defined by the editor themselves so as not to overwhelm the reader with information.

Shillingsburg’s model is an extreme one but it forces the consideration of how editors should design their editions in order to make them beneficial to its readers. A “knowledge site”, if one were actually to be created, may be unusable. The idea of *use* in digital scholarly editions is an important one. Hans Walter Gabler, for instance, argues that print is the medium in which books will be read but digital is the medium in which they will be *used* (“Theorizing” 43). For an edition to be usable there must be consideration of the user. Gabler therefore divides up the editorial work into two functions. The first function is “author-text-directed” and deals with the textual material (or material text, as Gabler notes) of the scholarly edition. That is, it constitutes the apparatuses that establish the edited text and which contain the “editor’s ammunition” from the documentary evidence (“Theorizing” 44). The other function of the scholarly edition is the “meaning-and-reader-directed” function and is supported by annotation and commentary within the edition. Gabler laments that the “significant reinforcements in method and procedure” of the “author-text-directed” function of the scholarly edition in the 20th century resulted in a decline in the “meaning-and-reader-directed” function. That is, there was a decline in the consideration of the reader in the creation of scholarly edition who, above all, is using the scholarly edition as a tool in order to interpret the text in some way, or at least gain some knowledge about the text. Shillingsburg does have something to say about “using” editions. In his essay, “How Literary Works Exist: Convenient Scholarly Editions”, he revisits his the model defined in *From Gutenberg to Google*. Here he focuses attention on how material forms are represented electronically

and how our decisions regarding the creation of digital editions “can be affected by our notions of use” (“How Literary Works Exist” 1). Shillingsburg’s essay mostly focuses on how digital scholarly editions can be made to be more “convenient”, as he believes this will result in an uptake in their use.

Robinson too is concerned for the readers/users of digital scholarly editions. His fear, however, is that if scholarly editors only make documentary editions then “we will distance ourselves and our editions from the readers” (“Towards a Theory” 127). Robinson believes that the rise of the documentary edition has been at the expense of the critical edition and, therefore, at the expense of the reader who wishes to have access to a stable edition from which they can gain insight and knowledge and, ultimately, are aided in their interpretation of a text. Robinson argues that Gabler’s theory of the digital scholarly edition is one based on “the construction of the text of the documents” (“Towards a Theory” 109). Robinson’s issue is that Gabler’s theory of the digital scholarly edition is too heavily preoccupied with the document and that a Gabler edition would result in the exclusion of everything that is “exogenous” to the document and its text (“Towards a Theory” 113). This means, writes Robinson, “that almost everything which interests us about a literary work - what it means, who wrote it, how it was distributed and received, how it is differently expressed - is excluded from Gabler’s model”. Gabler does, however, indicate the importance of the “reading-and-meaning-directed” function and laments its decline. Robinson’s argument is that Gabler’s model does nothing to prevent this decline and that digital documentary editions continue to ignore this function of a scholarly edition.

Pierazzo disagrees with Robinson and argues that the rise in the digital documentary edition is not responsible for the almost non-existence of the digital

critical edition. She points out that it wasn't until Gabler wrote "The primacy of the document in editing" editions that editions based on documents of an edition began to be taken seriously by editors ("Digital Documentary Editions" 2). Pierazzo argues that the digital documentary edition has gained popularity precisely because they have been neglected by editors for so long and have been considered the "poorer relatives of critical editions" ("Digital Documentary Editions" 13). This means that they come with "much lighter baggage" and thus "have a greater flexibility and adaptability to new conditions" ("Digital Documentary Editions" 13). In addition to this, they have the advantage of being founded upon a relatively recent theoretical foundation (the sociology of texts) and they fit into the narrative of the rise of the digital humanities where theory and practice supposedly converged at just the right moment. Pierazzo believes that the critical edition has not become established in the digital medium because it was "invented and informed by print technology" and has been the focus of too much theorising in that medium ("Digital Documentary Editions" 13). In other words, critical editions come with too much baggage and need a significant reformulation in order to successfully manage the transition from print to digital.

According to Tara L. Andrews, digital critical editions are rare because of a lack of standardisation. There is no consensus on the form that digital critical editions should take and, according to Andrews, this leads to a situation where there are no widely applicable computational tools to help produce such editions. Further to this, textual critics working in the digital medium tend to eschew the kind of formal models that are required for working with computers. As an example she points to the Text Encoding Initiative (TEI) which, although intended to be a standard for encoding texts in the humanities, currently places more emphasis on customisation and flexibility, as the TEI

guidelines are routinely customised for each new project. Andrews argues that the preference for customisation over standardisation among textual critics means that large-scale data interchange and textual analysis across different projects is prohibited (2). Andrews also argues that critical editors are so often only concerned with what the digital medium can bring to the publication of their editions rather than what the digital medium can bring to the production of their editions. Andrews calls for a new kind of “digital philology” where there is a more efficient division of labour between human and computer in the production of critical texts (2). By this means there must be a more concerted effort for the development of digital tools that aid the work of the editor in the areas of transcription and collation, for example. Andrews also raises the issue of analysis and argues that the kind of textual analysis made possible by computers could become a part of the editorial work. Reliable digitised texts are vital for computer-assisted analysis of texts and Andrews argues that “it is the practice of deep and/or large-scale text analysis, rather than that of textual criticism itself, which must drive the development of digital editions in all their potential” (6).

Some critics, such as Franz Fischer, claim that critical editions are more important than other types of editions, such as documentary or diplomatic editions (“Textual Plurality”). Pierazzo takes issue with this and claims it is similar to the nonsensical claim that literature is more important than history (“Digital Documentary Editions” 35). History and literature both have their place in textual scholarship. The equation of documentary edition with history and the critical edition with literary studies is an interesting one. It is more than likely not an accurate description of these two types of editing, and Pierazzo probably did not mean to indicate such a divide, but it does suggest that the future of the digital critical edition may lie in its ability to offer

something new to students and scholars of literature. McGann, in the preface to a revised 1992 edition of *A Critique of Modern Textual Criticism*, wrote about how, as he was writing the book, he became increasingly convinced that literary interpretation depended upon the historical study of material texts, whether literary scholars were aware of this or not (*A Critique* xxi). Documentary editions do have much to offer the literary scholar and the reformulation of the digital critical edition along these lines would need to be a drastic one. But if we consider the audience of a digital critical edition to be a *literary* one, interested in the interpretation and cultural context of a particular text and unconcerned with the document and the process of production, then what tools and methods of display could we imagine for the digital critical edition that could not be achieved by an equivalent print edition or a documentary edition? The answer perhaps lies in the field of digital literary studies itself and in the practice of digital text analysis.

4. The case of *Melmoth the Wanderer*

Let us now consider *Melmoth the Wanderer* as a subject for a digital scholarly edition in light of the debates and theories discussed above. *Melmoth the Wanderer* is a relatively stable text and has had no major revisions since the first edition published in 1820. In 1892 a new edition was published with only minor errors silently corrected. However, *Melmoth the Wanderer* could be considered an unstable text up until the moment it was first published. Maturin was under immense pressure as he wrote the novel and his publisher, Archibald Constable, became increasingly irritated at the manner in which Maturin would miss deadlines and the disorganised way in which he would eventually send pieces of his manuscript. Relations were already strained by the fact that Maturin

was working in Dublin and Constable's offices were in Edinburgh. The final text was arguably constructed by Constable and others at the publishing house, working to the best of their ability to decrypt Maturin's vague intentions for the various pieces of manuscript he dispatched at irregular intervals. The novel's complex structure, which has received a significant amount of critical attention, may not have been intended by Maturin at all and may have instead been created by Constable and his publishing house as the novel went to press. Letters between Maturin and Constable detail the publisher's frustrations with the author arising from the scant instructions Maturin appears to have offered in relation to the novel's structure. The history of the novel's composition and initial publication is further confused by the fact that no original, authorial manuscript of the novel survives. A documentary edition cannot therefore be offered as a potential solution to these problems. It is these issues that make *Melmoth the Wanderer* such an interesting candidate for a digital scholarly edition. Such issues gain increased relevance when considered in conjunction with the "sociology of texts" which specifically draws our attention to the intentions of various individuals involved in the creation of the first edition and their potential influences on the final text.

Maturin first mentioned the work that would eventually become *Melmoth the Wanderer* to Constable in a letter dated May 2 1818. Maturin told Constable in this letter that his next work was to be a poem of distinct parts, similar to Moore's *Lalla Rookh*. These separate parts would all be connected by a prose narrative. Constable was enthusiastic about the project and advised Maturin to proceed. Over two and a half years later, in October 1820, the novel finally went to print.

This delay was, for the most part, caused by Maturin. When he first suggested the novel, Maturin was already engaged on another project with Constable: the

publication of a collection of sermons delivered at St. Peter's in Dublin. Unfortunately, Maturin did not have enough sermons to fill a volume and so he was forced to compose new sermons causing the first of many delays to the composition of "Tales", the working title for *Melmoth the Wanderer* (8 Mar 1819). Once the sermons had been completed and were ready for publication, Constable urged Maturin to give his full attention to the composition of his "Tales" (21 Apr 1819). Maturin, at this point, was yet to send over any manuscript pertaining to the "Tales", despite it being nearly a year since he had been engaged by Constable on the project. On 26 April 1819 Maturin promised to send over part of the manuscript of the "Tales" but the project has apparently evolved since he first mentioned it in May of 1818. While in that letter Maturin had suggested a poem comprised of distinct parts connected through a prose narrative, it now appeared that the poems were only "incidental" to the narrative and were now merely "supposed productions of one of the characters" (26 Apr 1819). Maturin advised that the poetic parts must now "appear in *the body of the work*" (26 Apr 1819). Constable was not dismayed by this and agreed with Maturin that the poetry should be introduced just as it appeared in the body of the text (30 Apr 1819). Maturin angered Constable, however, when he told him that the composition of "Tales" would be delayed because he intended to concentrate on writing a new play. Constable advised against this and implored him to continue with the novel. Maturin agreed on the condition that Constable would forward him an advance on his pay, having now lost out from the postponement of his new play (11 May 1819). Constable promised an advance on receipt of half of the manuscript of "Tales".

On 23 July 1819, the first part of the manuscript of "Tales" was finally with Constable. On 4 August 1819, Constable received a second portion of manuscript and

was confused because it seemed to be “the commencement of the third volume, and also of the second Tale”. Maturin had failed to send the rest of the first Tale. Constable also complained that there was still no title attached to the first tale nor to the novel overall. On 11 August 1819, Constable wrote to say that the printer cannot proceed because they were “still without the continuation of the M.S. of Vol 1”. On 2 September 1819, Constable wrote again in confusion about the further manuscript he had just received. He wrote that only a small portion of the new manuscript was a continuation of the first tale and that “we cannot go on with the second till we have the first done”. He also told Maturin that, because of the lack of a title from Maturin, they had named the first tale “Melmoth”. At this point, Maturin is either sending manuscript off as he writes it, with no clear idea of how all of the tales fit together, or the elaborate structure and his failure to explain it clearly is causing confusion for Constable and the printer. Constable asked Maturin to “be as explicit as you can on describing the M.S. you send us” (2 Sept 1819). A week later, on the receipt of more manuscript, a considerable amount, but without any guidance of how it all fits together, Constable reaches breaking point with Maturin:

We have just received another Packet of M.S. through the Post Office, and we do now write to you with feelings of considerable chagrin to express our deep distress and concern at the careless way the MS has hitherto come to hand, so much so, as to put an entire stop to all our plans and proceedings. We received by our Clerk a considerable quantity, but strange today it was so unconnected, that with great difficulty we find part of it belonging to the first Tale, and a part to the second, at least we thought so, so little however appeared to connect with the first Tale

that we could not make up the third sheet and what is just recd. is in no way so far as we can notice, connected with what is received of the first—in one word we are wholly at a stand, and it is utterly impossible that the Work can proceed except some plan is pursued whereby the connection of the various portions of the MS is kept up—there is no paging, no connecting word nothing to guide us—and after corresponding for two months there are only two sheets set up and that without a title—you have never yet said what portion was lost or how it fitted with what came before. We write to you our feelings thus plainly and explicitly, and assure you if this continues we will be under the necessity of throwing up the undertaking, and begging repayment of our Advances. In your letter you clear up in no way the many queries we have put to you, as to the lost M.S. &c but what is truly is most agonizing is that all our letters produce no change. The MS comes en masse and we are utterly at a loss how to proceed with it. (9 Sept 1819)

Maturin from then on appeared to be more reliable in dispatching the manuscript, probably as a result of Constable's threat to cancel the project and to request repayment of the advance paid. The relationship between Maturin and his publisher appeared to have been rescued to some extent. Even so, when Maturin wrote to Constable in November 1819 to tell him of his plans to create a second set of tales and extend the work to eight volumes, Constable was naturally hesitant. He wrote that had no objection to this as long as the first set of tales remained an independent venture that did not rely on the second set of tales for its conclusion. However, Constable was careful to point

out, in a letter on 22 November 1819, that as things stood he would prefer to only be engaged as publisher on the first set of tales.

Maturin at this point seemed to have a clearer picture of the structure of the book and was able to tell Constable where each volume should begin and end (21 Jan 1820). Constable was still unaware of the overall plan, however, and asked Maturin what his plans are “regarding the book altogether” and to “let us know fully what you intend” (21 Jan 1820). The relationship was tested once more when Maturin suggested extending the novel from four volumes to five volumes. Constable wrote on the 11 February 1820 “to state most explicitly, that the book will not do in any way in five Volumes”. A five-volume work, according to Constable, simply will not sell. Maturin continued to ask Constable to agree to a second set of tales but Constable would not hear of it, his relationship with Maturin had clearly been soured by Maturin’s unprofessional approach to the publication of *Melmoth*. On 19 February 1820, Constable wrote that he “would rather defer making any proposal for the continuation of the Tales”. On 15 Apr 1820 he wrote to say he was “very sorry that it has not been suitable to the views of my house to enter into a new engagement as to a further collection or Continuation of your tales”. And on 27 April 1820, he wrote mentioning an offer from Colburn, another publisher, to print the next four volumes of tales and asked Maturin not to engage in “farther correspondence on the subject with my house”. Another obstacle emerged as Maturin continued to send manuscript for the fourth volume which had already exceeded the agreed length of the volume and the novel. On 10 July 1820, Constable wrote to say that the fourth volume is already too large and that “we do not notice any thing near a finish”. He repeated his assertion that “the book will be utterly ruined in 5 vols”. On 27 September 1820 it appeared that the novel was finished, in four volumes, and proofs

had been sent to Maturin. It was at this point that Maturin finally suggested the title: *Melmoth the Wanderer*.

These events present some interesting issues for the creation of a scholarly edition, especially in light of the theories of McGann and McKenzie discussed above. Approaching a scholarly editing project of *Melmoth the Wanderer* from a position informed by the “sociology of texts” forces us to confront the issue of the text’s genesis. In considering this initial period of composition and initial publication we are drawn to consider that, potentially, the novel’s intricate structure may not have been intended by Maturin at all. Instead the novel’s structure may have been created by Constable and his publishing house, who were trying to decipher how the manuscript was supposed to fit together with little or no instruction from Maturin. McGann would argue that the acts and intentions of Constable and his staff must receive equal consideration along with the intentions of the author. Sharon Ragaz has in fact claimed that the text of *Melmoth the Wanderer* could be considered a collaboration between Maturin and Constable. For Ragaz, the “text of Melmoth as we have it is the product of an extended process of collaboration, negotiation, procrastination and accident, complicated on either side by each participant’s evolving sense of professional standing, reputation and obligation at a time when the literary marketplace was rapidly changing” (372). However, without any surviving documentary witnesses to the text, the contributions, motives, and intentions of a range of actors from author to publisher to printer are impossible to decipher.

The lack of any documentary witnesses to the original text means that the editorial problem of *Melmoth the Wanderer*’s structure and the issues surrounding authorial intention cannot be resolved by a digital documentary edition. A scholarly edition of *Melmoth the Wanderer* can either ignore the implications of the work of

McGann and McKenzie and create an edition from the first printed text or it can offer a different kind of experience that accounts for the issues arising from the composition and production of the first edition in a non-documentary way. This thesis attempts the latter. It argues, along with its accompanying edition of *Melmoth the Wanderer*, that editorial problems such as the one presented by *Melmoth the Wanderer* are opportunities for reimagining what a critical edition can be and what it can achieve in the digital medium. This would then have the added benefit of giving new impetus to the creation of digital critical editions. Such digital critical editions would not be overshadowed by digital documentary editions because they would be addressing a problem that could not be addressed by a digital documentary edition. All that is required is a slight reimagining of the critical edition and a remediation of its structure and purposes for the digital medium.

An ideal candidate text for a such digital critical edition would be one with no original manuscript witnesses and one with questions surrounding the process through which it was originally composed and published, such as *Melmoth the Wanderer*. The problems surrounding the novel's original composition and publication described above invite us to reconsider the structure of the final printed novel that has been reproduced in every edition since the first. We do not want to disregard this structure, as it is the way the novel has been read for almost two centuries and is therefore vitally important to preserve, but it would be also beneficial for the reader to be able to view the novel in different ways and according to different structures. This would then allow them to confront the questions that inevitably arise when you consider how the novel was originally composed and published. Presenting the reader with multiple structures, or "views" as this thesis describes them, could not be achieved in an equivalent print

critical edition. This therefore places the digital critical edition into a different editorial space than both digital documentary editions and traditional print critical editions and it means that such digital critical editions are not in competition with either of those other kinds of editions.

In the case of *Melmoth the Wanderer* this can be achieved by delineating the different structures present in the text and allowing the user to access them individually. In other words to allow the user to view the text in the traditional way, chapter by chapter, but also to gather together the different parts of the various tales which are spread throughout the novel and allowing the user to see how these tales operate individually. This would then facilitate a consideration of whether these tales were intended to be structured in the way Constable printed and published them or if instead these tales were intended by Maturin to be separate, with one ending before another begins. Such a structure would also help resolve issues regarding who is speaking at any one time in the novel. Because of the novel's intricate tales-within-tales structure it can be easy to become lost in the various voices and narrators that populate the novel; reading the stories individually helps the reader to easily isolate each narrative voice in the novel. The novel's structure has received significant critical attention and plays a vital role in any attempt at interpreting the text. This edition does not abandon the novel's traditional structure but preserves it in another of the edition's "views". Users can read the novel in this way or they can move to the view of the novel that privileges the tales structure. The edition also takes this reformulation of the novel's structure and extends it in other ways. For instance, another view is included in the edition that breaks the novel up on the level of the paragraph. Each paragraph is then associated with a theme or topic and the user can then sort the paragraphs according to these topics. For

example, if a user was interested in investigating the topic of religion in the text then they could choose to only view the paragraphs that are most heavily associated with this topic. This was achieved by topic modelling the text and is described in greater detail in chapter four. This topic structure cuts through both of the other structures discussed above and privileges neither. Such a topic view could be introduced into editions of other texts and need not be limited to this edition of *Melmoth the Wanderer*. The following chapter will explore how the edition works in more detail.

The primary reason for the prevalence of the documentary edition in the digital medium is that they have credible pre-digital theoretical foundation in the work of McGann and McKenzie and have been absorbed into the digital humanities as one of its more successful practices. This has led to a tensions in the fields of digital humanities and textual criticism and between critical editors and documentary editors. But the critical edition is not rare in the digital medium simply because the documentary edition is plentiful. It is rare because it does not answer a problem in editorial theory in the same way that the documentary edition does. Documentary editions cannot be realised in print in the same way that they can be realised in the digital medium. Critical editions, however, can be realised quite easily in print and they reason they remain rare in the digital medium is because they fail to offer users something that they cannot find in print. One potential answer to this problem may lie in its ability to bring together the practices of close and distant reading, as will be shown in chapter four. One of the traditional reasons that digital critical editions have been argued as being superior to their print counterparts is that they can be organised hypertextually and thus offered an element of interactivity. The next chapter will show how this is not the case and that the benefits of

hypertext can be overstated. As will also be shown, digital reading practices can have a negative impact on digital critical editions as digital technologies, particularly the Web, encourage and reward a kind of reading that is unsuitable for digital critical editions. Digital critical editions therefore need a renewed focus on issues of design and usability and this will be the focus of the next chapter.

Chapter Two

Creating a usable digital critical edition of *Melmoth the Wanderer*.

Documentary editions have found a secure position in the digital medium while critical editions have not. Some potential reasons for this have been outlined in chapter one. In light of this, this chapter considers how critical editions can be reimagined in the digital medium. Editions that contain purely textual data do not have the solid theoretical foundation of digital documentary editions nor do they require the image reproduction capabilities or large storage space of the digital medium. Why then do we need to create digital critical editions? Shillingsburg argues that, with digital scholarly editions in general, what is being digitised are not the texts themselves but “the access to texts and textual scholarship” (85). Preservation and access are important reasons to create digital critical texts but these should not be the only reasons for their creation. Such texts run the risk of being unused in comparison to their print counterparts and may simply be slipped into archives and rarely consulted. To create digital critical editions simply for reasons of preservation and access, to simply make them encoded and computable, would be a missed opportunity for such editions. Indeed, Shillingsburg goes on to argue that the “potential effects [of digitisation] are profoundly textual, both in the sense of changing readers’ relationships to the text and changing their interpretations and uses of texts” (85). This statement is crucial. Digital critical editions need to offer new ways of using a text, ways that aid interpretation. And digital critical editors need to change the relationship a reader has with a text. This is because online readers are not the same as offline readers.¹ Gabler has recognised this and argues that

¹ The argument that the Web is changing the way we read and think has been gaining traction in recent years. For an introduction to the consequences of this from a humanities perspective see Hayles, “How We Read”.

the digital “will be the medium to study and use editions; while the print medium will remain the medium to read texts” (“Theorizing” 43). Haugen and Apollon argue something similar when they define the “positioning of readers as users” who are “increasingly becoming actors of their reading itinerary” as one of the four “evolutionary forces” that they believe have consequences for the creation of scholarly editions (“The Digital Turn”).² McGann also tacitly acknowledges differences in reading and using in his early manifesto for hypertext editions when he states that print is a medium that makes scholarly editions “difficult to read and use” (“HyperText” 2).³ Reading a text is not the same as using a text. A reader is someone who wants to access the text linearly and from start to finish, someone who wants to get a general sense of the overall text. A user then is someone who has perhaps already read the text and now wants to study it in greater detail. A user will want to access specific parts of the text that most interest them and will require access to the text that goes beyond a linear engagement.

Yet even with all of these acknowledgments of the changing relationship of text and reader and user, critical editors still tend to rely on designing critical editions as large amounts of content arranged hypertextually and with some page images included, even if they do not make claims to being documentary editions. In Patrick Sahle’s comprehensive and continuously updated list of digital scholarly editions, around 30

² The other three forces are: 1) the exponential development in the production and accessibility of documents, 2) the emergence of specific tools for scholarly work, and 3) the new political regime of editing (Haugen and Apollon, “The Digital Turn”).

³ In this seminal article, McGann argues that using books to study other books is inefficient. He states the “crucial problem here is simple: the logical structures of the ‘critical edition’ function at the same level as material being analysed” and “the full power of the logical structures is checked and constrained by being compelled to operate in a bookish format” (“HyperText” 3).

editions openly identify themselves as “critical editions”.⁴ The vast majority of these editions are, however, merely hypertext editions.⁵ Andrews, in a recent article, is forced to conclude that even when critical editions are created for the digital medium they are rarely conceived as “anything more than an electronic and hyperlinked version of a book that can accommodate a very large and detailed critical apparatus” (2).⁶ This raises two questions. The first is: what is the problem in conceiving digital critical editions in this way? The second is: how can we conceive of them differently? The answer to the first question informs the second question. This chapter attempts to offer answers to both of these questions.

In responding to the first of these questions, the first part of this chapter will look at the World Wide Web and hypertext. Hypertext has a long history and dates back to the work of Vannevar Bush towards the end of World War II (“As We May Think”). Initially conceived as a way of organising the entirety of human knowledge, hypertext eventually became the backbone of human communication in the form of the World Wide Web. Barnet argues that a failure to understand the theory of hypertext when creating tools for the Web leads to a “misremediation” of print structures in the digital medium (“Preface”). Textual and literary critics became interested in hypertext in the

⁴ This is out of a complete list of 369 editions. The full list is available at <http://www.digitale-edition.de/>. It is interesting to note that many of the editions that identify as “critical” are older and date from the late 1990s and early 2000s, suggesting either a decline in popularity of making digital critical editions or a decline in popularity of the term “critical”.

⁵ See *The Latin Prose and Poetry of Joseph Addison* (<http://www.philological.bham.ac.uk/Addison/>), *Catullus Online* (<http://catullusonline.org/CatullusOnline/index.php>), *The Lucula noctis Project* (<http://web.wlu.ca/history/cnighman/LN/index.html>), and *petrus plaoul* (<http://petrusplaoul.org/>). All of these are identified as “critical editions” on Sahle’s list.

⁶ One of the more famous and lauded digital scholarly editions, although not entirely a critical edition, is *The Walt Whitman Archive*. This edition began construction in the mid-1990s and continues to be supported to this day. It, however, does not push the boundaries of what is possible in the digital medium and is simply a hyperlinked collection of texts, paratexts, and images < <http://www.whitmanarchive.org/> >.

1980s and 1990s and in the potential interactivity it offered as a medium of storytelling and in the presentation of critical editions. The extent to which hypertext is interactive may have been overstated, however, and work of educational theorists, such as Diana Laurillard, has shown the limits of hypertext in terms of the learning process (109).⁷ Others have shown that the Web itself may not be conducive to “deep reading” at all. Maryanne Wolf, who has studied the effects of reading on the brain, suggests that our brains are being changed by digital technologies and that the type of deep reading required for long, linear, and complicated texts is not fostered by the online environment, which encourages distraction (8).⁸ The idea that the Internet is changing the way we think came to wider prominence in 2010 following the publication of Nicholas Carr’s Pulitzer Prize-nominated *The Shallows*.⁹ These two ideas, that hypertext is simply an illusion of interactivity and that the Web is not a conducive environment for deep reading, have serious consequences for the future of the digital critical edition.

From here, the chapter attempts to offer an answer to the second question: how can we conceive of digital critical editions differently? Critical editions are editions in which the editor has intervened change the linguistic text in some way.¹⁰ Working from this definition we can arrive at one possible way that critical editions can establish

⁷ Laurillard is Chair of Learning with Digital Technologies at UCL. Her 2002 book, *Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies*, contains important lessons for all those who design learning technologies for the digital medium, including scholarly editions.

⁸ For a succinct introduction to Wolf’s work see her article “Our ‘Deep Reading’ Brain: Its Digital Evolution Poses Questions”.

⁹ Carr’s book, although non-scholarly in tone, summarises numerous scientific studies on the effect that digital technologies have on the brain. See chapter 7 in particular.

¹⁰ This definition is informed by Tanselle’s descriptions of the different forms of editing in his essay “The Varieties of Scholarly Editing”. He states, for example, that critical editions are term as such because “their texts are the products of the critical judgment of editors” (“Varieties” 17)

themselves in the digital medium. This way sees the editor working to establish multiple different structures or “views” of the linguistic text in order to facilitate the use of a text. In such an edition, critical they are no longer simply responsible for correcting or establishing a single version of a text but are instead responsible for managing a user’s relationship with a text. Each view is established carefully with all of the experience that comes with being a textual critic and the user is always reminded that what they are seeing is just one way of viewing the text, one that has not been historically assumed but has been instead established as a text by the critical editor. For example, this edition of *Melmoth the Wanderer* offers the user a number of different ways of viewing the text: by search term, a complete scrolling view, by chapter, by tale, and by theme. Each version or view of the text is established as a text by the editor. Seen this way, the critical edition gains a new impetus in the digital medium and can achieve something not easily achievable in an equivalent print edition.

It is in this second part of this chapter that the specifics of this edition of *Melmoth the Wanderer* are discussed. Firstly, the advantages of creating a digital critical edition as a single-page web application (SPA) are considered.¹¹ These advantages include the instant loading of all data on a single HTTP request and the ability to manipulate the Document Object Model (DOM) after it has been loaded into the user’s browser. This chapter then moves on to describe how this digital critical edition was achieved. It describes some of the code behind the app and at the four technologies that make up the MEAN stack: MongoDB, ExpressJS, AngularJS, and NodeJS. The final part of this chapter looks at design. Editors can aid the user by ensuring that their

¹¹ For an introduction to single-page web applications see chapter 1 of Monteiro, *Learning Single-Page Web Application Development*. Alternatively, for a very brief summary of the advantages of SPAs see the introduction to part 1 of Mikowski and Powell, *Single-Page Web Applications*.

editions work on the widest variety of screens and devices possible. For its interface, therefore, this edition adopts a responsive design. A responsively designed app will adapt itself depending on the kind of device being used to view it. This final part of the chapter therefore comments on the use of Twitter Bootstrap, which was used to create a responsive design for the web app.

1. Hypertext and Remediation

When we speak of the “digital medium” in terms of digital scholarly editions, as I have done so up to this point in this chapter, we are invariably speaking of the World Wide Web and its related technologies. The Web is the publication site for all modern digital scholarly editions, with the exception perhaps of editions designed as native apps for iPads and Android tablets.¹² The Web enables instant communication and delivery of content but entails a different kind of textuality to the traditional printed medium of scholarly editions: hypertext. This tension between the textuality of print and of digital was an early concern for digital scholarly editors. Janet H. Murray, for instance, relates the story of how, in the early 1990s, she was asked to speak to the committee overseeing the production of a print variorum Shakespeare (8). Murray, with a background in educational computing, was aware that such a work could be better represented digitally than in print and she was taken aback when the committee members reacted with aversion to the idea of a digital variorum. For Murray, the committee members could not “separate the activities of research from the particular form they had historically

¹² The advantages of such mobile apps are unclear and, in fact, editions designed as such apps limit their own audience, who need the required device to be able to use the app. A responsive web app, one designed to work on all kinds of screens, is far preferable to a native app for a tablet or mobile device. Such a responsive web app does not limit its audience but expands it.

assumed” (8). Print is not a representation of the way we think but is simply the best means of representation that was available historically, and one to which we have since adapted our way of thinking. “We cling to books”, Murray wrote a few years later thinking back on this story, “as if we believed that coherent human thought is only possible on bound, numbered pages” (8). As Belinda Barnet puts it: “[t]he technologies we interact with aren’t just tools to ‘express’ our thoughts, they actively mark the limits of such thought” (ch. 3). Murray and Barnet are not the only people to make these arguments. Shillingsburg, for example, suggests that the nature of textuality may have been “constrained” in print, because print as a format is designed to speak “linearly and singularly” and attempts at subverting the linear and singular nature of print (such as in a variorum edition) resulted in editions that were difficult to use (*Gutenberg* 85). N. Katherine Hayles argues that the practices and format associated with print are “media-specific” and have remained invisible during the print era (2). Similarly, McGann has suggested, in his famous essay, “The Rationale of HyperText”, that the digital medium frees the scholarly editor from having to use the printed book format as a means of studying books. McGann believes the scholarly edition to be one of “the most fundamental tools in literary studies” (“HyperText”) but, even so, he believes that the medium of print has severely limited its development. Like Shillingsburg, he believes that, though the critical edition is “brilliantly conceived, it can be “infamously difficult to read and use” (“HyperText”). Tanselle argues something similar when he speaks about the limits that the codex form placed on scholarly editors and how those limits informed how the practice developed. He argues that scholarly editors in print primarily created editions centred on single critical texts with the apparatus used to record variant readings because that it is all the codex form would allow. The apparatus was an

evolved technology that was a direct result of the limits of the codex form. As Tanselle states, “[b]ecause the codex form formed this kind of compromise of editors, they have discussed endlessly the questions of selection, arrangement, emphasis, and form that the construction of an apparatus poses” (“Reflections” 3). He adds that the presentation of single texts “did not necessarily mean (and in fact was not likely to have meant) that they believed only one text was valid or desirable; it only meant that the option of presenting more texts was not open to them” (“Reflections” 4).

The unsuitability of print for the representation of human thought was the issue that concerned the very earliest of hypertext theorists. Seeing the print book as an inefficient means of preserving human culture and memory, these theorists set about designing a better system of organisation and representation. The Web today is often seen as analogous to hypertext but the concept of hypertext predates the Web by many decades. A system of textuality that was both branching and interlinked was first conceived of by Vannevar Bush in a now-famous article in *The Atlantic* in 1945 called “As We May Think”. In this article Bush posits the invention of a device called the Memex within which a person would store “all his books, records, and communications, and which is mechanized so that it may be consulted with exceeding speed and flexibility” (“As We May Think”). For Bush, however, the “essential feature” of the Memex is “associative indexing”, a process whereby “any item may be caused at will to select immediately and automatically another” (“As We May Think”). It was not until 1963 that the the word “hypertext” was coined by Ted Nelson, who defined it as “branching and responding text, best read at a computer screen” (qtd. in Barnet “Preface”). Literary theorists began to realise the potential importance of hypertext in the late 1980s. These theorists, such as Jay David Bolter and George Landow, saw the

ways that hypertext could change our concept of what a text actually is.¹³ This work linked hypertext with the work of post-structuralists, such as Derrida, Foucault and Barthes, who had theorised about a new multilinear and networked form of a writing that would escape the linear and passive nature of the codex. More recently, the work of education theorists has shown the influence that hypertext can have on the process of learning. Laurillard, for example, has demonstrated the limits of hypertext in terms of interactivity between student and teacher and her findings are important for conceptions of interactivity in digital scholarly editions.¹⁴ Hypertext was once thought of as a major advantage to scholarly editors working in the digital medium because it was seen to offer a level of interactivity that could not be achieved in print. Today, however, hypertext has become the norm and the perception of its advantages has been diluted by time. Hypertext, once seen as the major advantage that digital critical editions had over their print counterparts, is no longer enough. And, as Laurillard has argued, the level of interactivity offered by hypertext may be exaggerated.

Literary studies' first significant engagement with hypertext was through the work of Landow. His work attempted to link hypertext with critical theory, using the work of Barthes, Derrida, and Foucault. It was using the work of Derrida that he attempted to confirm a critical analogue to the type of intertextual display made possible by hypertext. Landow argues that Derrida "continually uses the terms *link (liasons)*, *web (toile) network (réseau)*, and *interwoven (s'y tissent)*, which cry out for hypertextuality" (53). He claims that Derrida's work describes "extant hypertext systems in which the active reader in the process of exploring a text, probing it, can call into play dictionaries

¹³ See Bolter and Grusin, "Beyond Remediation", and Landow, "Hypertext 3.0".

¹⁴ See in particular pages 108-120 of Laurillard, *Rethinking University Teaching*.

with morphological analysers that connect individual words to cognates, derivations, and opposites” (53). Landow highlights the way that hypertext is a “fundamentally intertextual system” with a “capacity to emphasise intertextuality in a way that page-bound text in books cannot” (55). He claims that any work of literature is an “*implicit* hypertext in nonelectronic form” (55) that references other parts of itself and other texts. The intertextuality permitted by hypertext is one of the reasons why scholarly editors were attracted to the World Wide Web in the 1990s, as it offered a way of organising the multiple texts and paratexts required for an edition designed according to the theories of McGann and McKenzie.

Barnet argues that the Web is not the only way or even the best way to implement hypertext and that the way we think about how text operates hypertextually needs to be informed by the work done by those pre-Web hypertext theorists, such as Nelson and Douglas C. Engelbart. The Web itself, according to Barnet, is one step of the “evolution” of technical systems that aimed to offer an alternative way to organise the sum human knowledge than offered by the printed book (“Preface”). This idea of the evolution of technical systems is important to understand in terms of digital scholarly editing, which will, as a practice, need to continually evolve along with these technical systems. It is also important for digital scholarly editors not to become complacent and not to take certain technologies for granted. It is important to continually talk and theorise about these technologies so that they do not disappear as an invisible status-quo in the same way as print technologies did for so long. Barnet is particularly concerned about the distance emerging between our intellectual cultures, between scholars and programmers, which results in scholars theorising and programmers building completely separately when they should be working in sync as “sign and countersign of

a single practice” (“Preface”). Barnet believes that an ignorance of this problem leads to a state of incremental adaptation or, as she calls it, misremediation. Misremediation, writes Barnet, is “not true reinvention of old media practices in new technical contexts but reassertion or encapsulation of ancient practices within the new” (“Preface”). Barnet argues that “too much is still governed by maladaptive models like page, document and file, which, as Nelson always said, distract from true electronic literacy” (“Preface”).

The term “remediation” itself was coined by Bolter and Richard Grusin (viii). Put simply, the term is used to refer to instances where a new medium is used to represent the content of an old medium. An obvious and pertinent example being the representation of the printed texts in the digital medium. Remediation and misremediation are important concepts in the design of digital scholarly editions as they draw attention to the features of print that are retained in editions and which may not actually be necessary. Haugar and Apollon, for example, highlight the resilience of the book metaphor in the digital medium and they argue that many of the forms of writing that appear online, and particularly in digital scholarly editions, are inherently bookish. While the Web’s foundations lie in a different kind of textuality than print, the “two-dimensional page layout paradigm” remains in much of new media (“The Digital Turn”). Haugar and Apollon call this a “mimicking conservatism” (“The Digital Turn”). They also argue that the book metaphor continues to live a life outside of print because writing itself is a linear process. But the preservation of the book metaphor in the digital medium move is often an industry and design decision. Many digital reading devices today, such as the iPad and the Kindle, retain features of print, even when no longer necessary. Page numbers and page turn animations are examples of two such features. In design, this importation of features from a previous object into a newly designed

object even when these features are no longer necessary is known as skeuomorphism.¹⁵ Digital documentary editions are littered with skeuomorphs but they may be an exception to such a design principle as digital documentary editions are digital representations or remediations of some material object, where the materiality of the old form is a vital part of the new edition. Skeuomorphs in digital critical editions, however, may be unnecessary. The fields of User Interface design (UI) and User Experience design (UX) likely have much to inform the design of digital scholarly editions, which operate in the same hypertextual space as the rest of the content on the Web.¹⁶

Berry argues that there are some problems inherent in using the term “remediation” and prefers to use the term “softwarisation”. Berry argues that the term “remediation” is used to suggest that softwarisation is a process through which the old medium (broadcast, print, film, etc.) has become the content of the new one (software) and is then “networked through digital communications systems” (17). Software breaks down the divisions between these old media and replaces the system that “formed the infrastructure and possibility of their existence” with a new software-based one within which these media are fundamentally the same thing (digital files) that are subject to the same kinds of “software control” (Berry 17). For Berry, the problem with the term “remediation” is that it makes us think we are still dealing with the same kinds of media divisions and this can influence the way we use digital content. But Berry argues that it is not only the individual but also institutions that are influenced by this way of imagining digital content. This why, according to Berry, large media

¹⁵ For a short introduction to the concept of skeuomorphism see Judah, “What is skeuomorphism?”.

¹⁶ Steve Krug’s *Don’t Make Me Think, Revisited: A Common Sense Approach to Web Usability* is essential reading for anyone who wishes to understand web design from a usability perspective.

corporations still keep TV, radio, and film in separate divisions or departments. Berry goes on to argue that these distinctions are continuing to be eroded and that new distinctions will emerge as software continues to change the media landscape, as evidenced by the digital first strategies at the *BBC*, *The New York Times*, and the *Guardian* (17). Berry's concern is that, until these new divisions emerge, our assumptions about past media will limit our understanding of new software-based media and he argues that we must discard theories of media that are too closely wedded to older technologies while maintaining those theories that are still appropriate (17).

The remediation of print texts in the digital medium often adds new features that were not part of the old medium, one of these being hypertext. The interactivity offered by hypertext is often seen as one of its advantages over print. The level of interactivity actually offered by hypertext can be deceptive, however. Laurillard has highlighted this limited interactivity in her work on the potential uses of digital technologies in the learning process. Laurillard's findings should be of interest to scholarly editors working in the digital medium. She argues for the use of a conversational framework in order to support the design of learning technologies. She claims that "the best expression of an empirically based teaching strategy... is an iterative dialogue between teacher and student focused on the topic goal" (77). The problem with hypertext in the conversational framework, according to Laurillard, is that the discursive iteration (the idea that teacher and student both revise their conceptions based on an iterative dialogue between both parties) cannot be a continual loop because hypertext can only offer the same pre-scripted reply to a particular question (109). Hypertext can give the illusion of interactivity in its use of multiple paths through the same text but these paths are always predetermined by the designer. Hypertext, while having an element of interactivity, is

similar to print in that it cannot be interrogated. As Laurillard describes it, hypertext and hypermedia “can offer alternative perspectives on the same question, but there is no ‘re-articulation’ in the light of the student’s performance or puzzlement” (109-110). Its strength at the discursive level in the conversational framework is that it “offers open access to a range of statements of the lecturer’s conception, and uses a range of media” (110). It does offer freedom of navigation but because the user is the one exerting control it reduces the amount of time that they are likely to spend on the node at the end of each link. Laurillard makes an important point here: unlike print, “where there is an implicit surrender of pace to the control of the author, a user-controlled medium creates the expectation that the user will not have to submit to author control for long” (110). She describes interactive media, like hypermedia, as “sit-forward” in contrast with narrative media such as print or television which are “sit-back”. Laurillard believes that this seriously limits the presentational capability of hypertext and that it is not an appropriate form for complex accounts and explanations where prolonged learner attention is required. She states that it “would not be appropriate to use it for a complex account or explanation where the author needs to hold the learner’s attention over a period of many minutes” (110).

2. Deep reading

Laurillard has reservations about hypertext’s ability to aid or improve the learning process. Others have similar concerns in terms of the impact of digital technologies on reading practices. Hayles, for example is concerned how digital media in general are impacting on the reading practices of students, while Hillesund and Bélisle have written about how digital remediation effects reading practices both in general and in the

context of digital scholarly editions (*How We Think* 55; “Digital Remediation”). The primary concern that has emerged in response to the rise in use of digital technologies, the Web in particular, is that the kind of reading that is rewarded by these technologies influences the development of our reading brains and alters the neural pathways that allow for deep reading and deep engagement with a text. There have been many debates, discussions, and reports in recent years that suggest that the type of deep reading required for digital scholarly editions is simply not possible using the Web. Nicholas Carr’s *The Shallows* summarises many of these debates. In this book, Carr argues, both from his own experience and in citing various scientific studies, that the Internet and the Web are changing the very way we read and think. Carr cites numerous studies in his book, one of which is a 2008 scientific study which found that “when people search the Net they exhibit a very different pattern of brain activity than they do when they read book-like text” (121). The study examined a number of subjects, both experienced and inexperienced Web users, while they were inside an MRI machine. They were asked to carry out a number of Google searches for one portion of the tests and then to read straight text in a simulation of book reading (121). The researchers discovered a very different pattern of brain activity between the two activities. According to the study, when we read a book our brains have a lot of activity in the regions associated with language, memory, and visual processing. This is in contrast to the experienced Web users in the study, who display increased activity in the regions associated with decision making and problem solving, regions that usually do not see much activity during the task of reading a book. For Carr, such a finding indicates why deep reading can be difficult online. He writes that the “need to evaluate links and make related navigational choices, while also processing a multiplicity of fleeting sensory

stimuli, requires constant mental coordination and decision making, distracting the brain from the work of interpreting text or other information” (122).

In an interview with Carr, Maryanne Wolf, a leading researcher in reading and its effects on the brain, stated that when we read online we “sacrifice the facility that makes deep reading possible” and we become “mere decoders of information” (122). Wolf’s research investigates the impact of digital technologies on our reading brains and, in particular, on the brains of children. The brain circuits of an expert reader, according to Wolf, are “stunningly complex” (8). Wolf describes how the brain forms new circuits every time it learns something and these new circuits connect some of the brain’s original structures. “In the case of learning to read,” writes Wolf, “the brain builds connections between and among the visual, language and conceptual areas that are part of our genetic heritage, but that were never woven together in this way before” (8). It takes years of this to form the brain of an expert reader and to form the kind of brain that is able to read deeply and to analyse a text. Importantly, Wolf also states that the way we read, and what we absorb in reading, “will be influenced by both the content of our reading and the medium we use” (8). There is a lot we still do not know about the digital reading brain but Wolf’s concern is that a reading brain confronted with immediate information that requires little intellectual effort will have a serious impact on the ability of new readers to decipher a text, to interpret it, and to work through its layers of meaning. This is because the brain has a “natural attraction to novelty” and in an environment of multiple distractions, the brain may shape itself into the kind of reading brain that “seeks to reduce information to its lowest conceptual denominator” (8). For Wolf, our digital culture is one that is “too distracted by and too drawn to the next piece of information to allow itself time to think” (8). All of this has

very serious repercussions for the field of digital critical editing. Critical editions depend on deep reading and deep engagement with a text and, if Wolf's predictions come to be true as we begin to learn more about the digital reading brain, then it could become very difficult for digital critical editions to carve out a space for themselves online. In order to gain and hold readers, the digital critical edition will have to offer those readers a different experience than they are used to in print. Digital critical editors will also have to pay attention to the design of their editions, how they look, and in what way users are expected to interact with these editions.

3. A usable digital critical edition

A critical edition is one in which an editor intervenes in order to change the linguistic text in some way. These changes are made because of errors that editor perceives have entered the text over time or because the editor perceives that the original published text is not the one that the author intended. Tanselle states that "an editor who incorporates alterations, however few, can no longer claim to be presenting the text of a document but is going beyond the document to focus on something else, normally a work intended at some past moment" ("Varieties" 17). It is on this last point, that critical texts are changed in order to establish a "a work intended at some past moment", where this critical edition of *Melmoth the Wanderer* diverges from the majority of critical editions. This critical edition alters the text of *Melmoth the Wanderer* not to recreate it as it existed in some past moment but in order to re-structure it for ease of use and for access to its constituent parts. This edition allows users to view the text in a standard scrolling view of the complete text, to dynamically sort and highlight the text according to a search term of their choice, to view the text according to two different hierarchical

structures: chapters and tales, and to sort the text according to theme. It is in the digital medium that such an edition can be most easily achieved.

How then is this edition achieved? Put simply, the text of *Melmoth the Wanderer* has been split on the level of the paragraph. Each paragraph has been encoded as its own “object”.¹⁷ In other words, the text of *Melmoth the Wanderer* has been reimagined as an archive with each paragraph now treated as an object in the archive.¹⁸ Each of these objects, and their accompanying data, can now be delivered to the user in the different structures and formations (or “views”) described above. All of this is done dynamically, in the browser, without the user having to reload any data or send any page requests to the server.

Before going into detail on how this edition works, it is important to know how a web browser operates. When a web page is loaded, the browser creates a Document Object Model (DOM) of the page.¹⁹ The DOM is a World Wide Web Consortium (W3C) standard.²⁰ In the words of the W3C, the DOM is “a platform and language-neutral interface that allows programs and scripts to dynamically access and update the content, structure, and style of a document” (“JavaScript HTML DOM”). What this means is that that programs, such as ones created using JavaScript, can interact with the DOM so as to change the appearance, the structure, and the content of a web page. The

¹⁷ These decisions are new for editors in the digital medium. The decision to treat the text as a series of paragraphs is not one without consequence. It both permits and limits the eventual features of the edition. Once encoded as a series of paragraphs, the text must arrange itself on that basis. Chapter three of this thesis explores the encoding of *Melmoth the Wanderer* in detail.

¹⁸ This was achieved using JSON and is discussed in detail in chapter three.

¹⁹ For a basic introduction to the DOM see http://www.w3schools.com/js/js_htmlDOM.asp

²⁰ The W3C is an international community that works on the design of web standards. See <http://www.w3.org/Consortium/> to learn more about the W3C.

W3C summarise the HTML DOM simply as “a standard for how to get, change, add, or delete HTML elements” (“JavaScript HTML DOM”). What is most exciting about DOM manipulation is that it can be carried out even after the DOM has been created by the web browser. What this means is that the style, content, and structure of a web page can be dynamically altered even after that web page has been initially loaded. It is here, with the power of DOM manipulation, that we can begin to see a way for digital critical editions to make a place for themselves in the digital medium. Editions with a purely textual basis can use DOM manipulations to become more accessible, interactive, and usable, with the text rearranging itself in order to suit the user’s investigations. In a nutshell, this is how this edition of *Melmoth the Wanderer* works.

This edition of *Melmoth the Wanderer* is a single-page web app built using the MEAN stack. By building the app in this way, users are offered a greater sense of interactivity with the text than can be achieved using traditional web technologies alone, such as HTML, CSS, and PHP. A single-page web application means that the entire website is loaded into a user’s browser with the first request. The user’s browser window, or view, will then update in response to certain events, such as a user clicking on a button or interacting with something on the page. This is desirable because it means that a user does not have to send a request for a new page when they want to load new content, instead the browser window is updated in real time. This speeds up performance and lessens the amount of time the user needs to spend moving through content. Reloading and requesting new pages can be slow and frustrating, sometimes requiring multiple attempts and not to mention search results that can be hard to decipher and also requiring new page requests to see them in the context of the entire text. These problems are exacerbated by slow Internet connections. But with single-page

applications, the speed at which the view responds to user queries and interactions increases and leads to a more fluid experience that helps users feel in control of the content, similar to the way we feel with a book. Mikowski and Powell argue that traditional websites where static files are served in response to user requests are accompanied by a huge productivity cost. They believe SPAs to be “the best choice to provide the optimal user experience” (2). With this edition, once the user follows the link to the text of the edition, the entire text of the edition is loaded into the view. The user can then choose to display a single chapter or the entire text, and can move back and forth between chapters without having to send a single page request. This means that navigation is fast and it allows the user to be more productive, able to find the section they want quickly and with minimal hassle.

This edition improves on static hypertext critical editions designed as traditional websites in a number of ways. Firstly, users are able to instantly sort and highlight the text by search terms. Secondly, users can choose to navigate the text by either a tab view or a scrolling view. The tab view allows the users to instantly load the chapter of their choice into the DOM by clicking on the corresponding tab. The scroll view loads the entire text into the DOM and offers an interactive menu to the left that changes in response to the user’s scrolling of the text thus offering them a visual anchor in the text at all times. Thirdly, this edition lets the user choose between the two hierarchical structures as described above: the chapter view and the tales view. Finally, the user is able to choose sort and highlight the text according to a number of topics or themes that were generated from a topic model of the novel’s paragraphs.

One of the ways that user experience is improved over a traditional website is through the use of filtering and sorting content instead of searching the entire indexed

site. The text view for *Melmoth the Wanderer* includes a search box at the top of the page. Upon entering a search term, the content in the browser window will update in real time to show only the paragraphs that contain that search term. In addition, every instance of the search term is highlighted on the page. This is preferable over a traditional implementation of a search box because the user is not taken away from the text of the edition at any time. There is no page reload to take the user to a list of search results that a user will then have to work their way through, each search result requiring a new page request in order to return the user to the text. If the search doesn't work or returns no results, the user must initiate a new request. Through filtering and sorting, the user is never taken away from the text. If there are no results that match their search term, the content will simply show no content. The user can then delete their search term to show the complete text again or try a new term, all without having to send a page request or having to load a new page. We can see why such an filtering and sorting implementation would be desirable. With books, we can easily flip back and forth between different sections; they feel malleable in our hands *and* we feel in control of the content. This edition's sort feature aims to improve upon simple searching by letting the user easily manipulate the text without having to load a new page. With a traditional search box, we lose this feeling of control when attempting to navigate a text.

Users are also offer a choice of two different ways to view the text. The default view is a "Tab View" which will display one chapter in the view at a time and users will be able to instantly navigate to different chapters using the tabs above the text. By clicking on the purple "Scroll View" button, however, a continuous-scroll view of the entire text will be injected into the user's browser. Figure 2.1 shows this view. Because it is easy for the user to get lost in such a vast amount of text, a side navbar is provided.

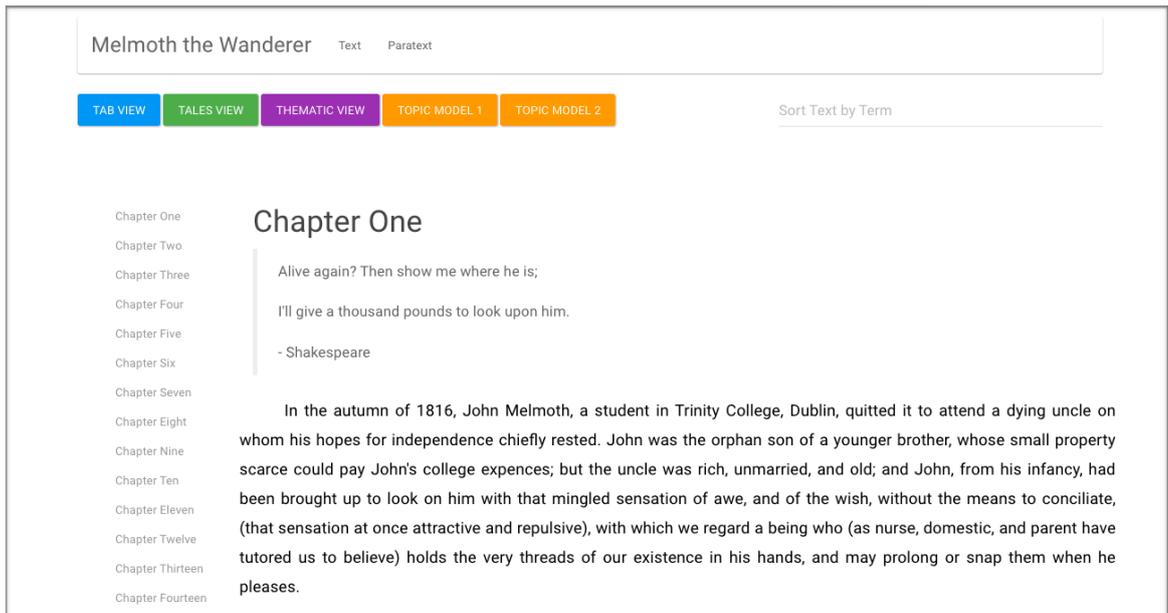


Figure 2.1. Chapter Scroll View

This will allow to users to instantly scroll to a selected chapter but it will also respond to the user's scrolling and will highlight the particular chapter that is currently shown in the user's browser. This feature is shown in Figure 2.2.

Melmoth the Wanderer is a structurally interesting novel, as is discussed in Appendix A. It has been argued by some critics that its elaborate structure was intended by Maturin to confuse and disorient the reader, thereby reflecting on his own confusion and disorientation as a member of the minority ruling class in Ireland surrounded by a hostile native population. But, as others have shown, the actual structure may not have been intended by Maturin at all, and is instead a byproduct of a complex composition and publication process. Whatever the reason, the structure is an important facet of the novel and one that has attracted critical attention since its initial publication. One thing that this digital edition does, therefore, is to make the different parts of *Melmoth the Wanderer* more accessible. This will aid readers who have already read the novel but who now want to study it in its constituent parts. We can do this by not only allowing

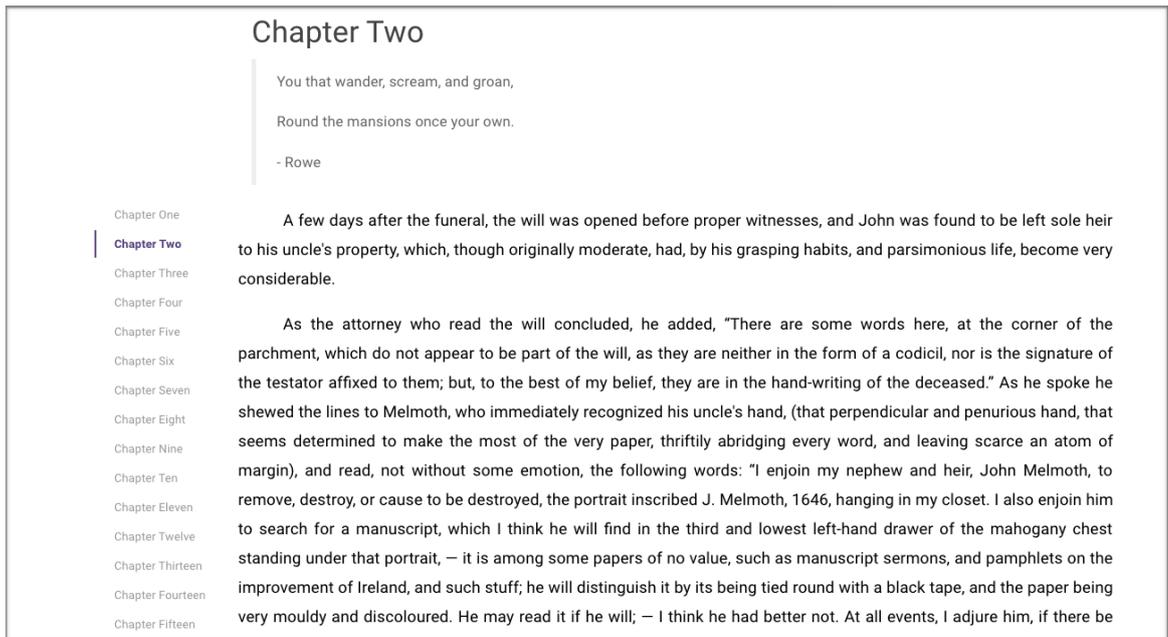


Figure 2.2. Scrolling View with chapter highlight in side-nav.

readers to access the full and complete text but by also allowing users to access a view of the text based on a tales structure, rather than through a chapter structure. Users can do this by selecting the “Tales View” button. As discussed in chapter three, two potential solutions to the problem of representing both these structures in the edition were pursued. The multiple encodings version of the edition is set as the default version due to the slow response times, for sorting the text in particular, that come with the single-source encoding.

The final view is called a “thematic” view. This organises the text according to a different number of topics. These topics were determined by splitting the novel into paragraphs and then running the paragraphs, as a collection of documents, through the topic modelling program MALLET. This process is described in chapter three. Each paragraph is assigned a topic by MALLET and by organising the the text according to these topics, users can see immediately which parts of the text relate most strongly, for

The screenshot shows a web interface for a thematic view. At the top, there is a grid of 24 topic buttons: RELIGION, ESCAPE, OLD MELMOTH, CASTLE / ROYALTY, TRAVELLING, ISLAND, STORM, ROMANTIC, FAMILY 1, CROWDS/AUDIENCES, LOVE, SLEEP, FAMILY 2, NIGHT AND GOTHIC, YOUTH AND BEAUTY, FAMILY 3, SUFFERING, MONASTIC LIFE, JUDAISM, INQUISITION, FEMININE, TELLING TALES AND STORIES, and READING AND WRITING. The 'READING AND WRITING' button is highlighted in blue. Below the buttons is a large text area with a title 'Reading and Writing' and a paragraph of text. A small box on the right side of the text area contains the number '2.02'.

Figure 2.3. Thematic view

example, to the topic of “religion” or to the topic of “suffering” or to the topic of “family”. Figure 2.3 shows this view.

4. The Method

The MEAN stack is a collection of JavaScript technologies that rely on JSON data. The app retrieves this JSON data from a MongoDB database hosted on MongoLab²¹. The app is built on NodeJS. A RESTful Web API²² for interacting with the edition data was created using the Express module for Node. Mongoose, another Node module, is then

²¹ MongoLab is a cloud database service for hosting MongoDB databases. It can be accessed at <https://mongolab.com/>

²² API stands for Application Programming Interface. A Web API is a defined interface for the sharing of data between actors and applications. A Web API usually consists of a defined set of HTTP request messages along with a defined structure for their responses, which are usually in XML or JSON. A RESTful Web API is one whose requests are configured to use the same HTTP verbs that are used to request web pages (GET, PUT, POST, DELETE). To learn more about RESTful web design see Richardson, Amundsen, and Ruby, *RESTful Web APIs*.

used to model the data in the MongoDB database. Finally, AngularJS is used for the front-end.²³

The MEAN stack was chosen over XSLT²⁴ and the traditional LAMP stack and over publishing frameworks such as Omeka and content management systems such as WordPress and Drupal.²⁵ This choice comes with its benefits and its drawbacks in terms of creating a digital critical edition. The benefits come from the functionality that these technologies allow and the relative ease it is to get a web app running quickly. A single-page web application loads content faster and an app built in this way is also heavily modular, meaning different parts can be reused throughout the app. But the drawbacks are the steep learning curve that comes with the technologies, particularly AngularJS, once you learn the basics and move on to more advanced topics. The major drawback for a digital humanities project that employs the MEAN stack is that the data needs to be in JSON format and, as is shown in chapter three, JSON is less suitable for the encoding of humanities texts than XML, which is more suited to encoding data with mixed content.

The most common web development stack is the LAMP stack. The LAMP stack comprises a Linux server on which is running an Apache web server with MySQL as the database and PHP as the language for interacting with that database. The LAMP stack comprises various separate technologies that require knowledge of various languages. This is a lot for a sole developer to come to grips with and that is all just for the

²³ For an excellent beginner's guide to the MEAN stack see Brežnjak, "How to get started on the MEAN stack".

²⁴ XSLT stands for EXtensible Stylesheet Language Transformations. It is the language used to transform XML documents into PDFs, HTML, and other XML documents.

²⁵ Content Management Systems (CMS) allow for the publication of websites without the need to code by hand. Content and style is instead managed through a central interface.

backend. In order to create a front-end, a developer still needs to know HTML, CSS, and JavaScript. For this reason, projects that use the LAMP stack will often have a number of different developers working on different parts of the back-end and the front-end. For a project such as this, where a sole individual is taking on the role of editor, developer, and designer, the more languages there are to learn and maintain, the more complicated the task becomes. The MEAN stack can do everything that a LAMP stack can do but it instead uses a single language to achieve such functionality. Omeka, for instance, is one way that the steep learning curve of the LAMP stack has been addressed. Omeka is a free and open-source web publishing platform for scholarly collections. It aims to make it easy and accessible for non-specialists in programming to publish scholarly collections online.²⁶ It is not entirely suited to the publication of critical editions, however, and was instead designed specifically for dealing with archival collections and other such collections of objects rather than purely textual data.

Node is at core of the MEAN stack. It allows for the creation of real-time web applications where both server and client can initiate requests and exchange data freely.²⁷ Node is fast and because it is based on Google's V8 JavaScript engine, and because Google is significantly invested in this engine, Node is only going to get faster. Node was revolutionary for the JavaScript language. Before Node, JavaScript was not taken seriously as a programming language. It was seen primarily as a language that web designers would grab in pieces from libraries in order to add interactive features to websites. jQuery, for example, is a library of JavaScript code that can be used to add

²⁶ Omeka describes itself as “a free, flexible, and open source web-publishing platform for the display of library, museum, archives, and scholarly collections and exhibitions”. See “Omeka: Serious Web Publishing”.

²⁷ For a good tutorial on getting started with Node see Cannaday, “An Absolute Beginner's Guide to Node.js”.

effects and animations to HTML elements and this was the most common implementation of JavaScript up until recently.²⁸ Before Node, JavaScript could only be executed in the browser but, after Node, JavaScript could be run separately from the browser, allowing for the creation of genuine JavaScript programs. The standard example of what Node can do is the creation of a simple HTTP server. Using just a few lines of code, Node can be used to set up HTTP server locally on a machine. This is incredibly useful for testing websites before they are sent into production, for example. Node continues to rise in popularity and has received increased credibility as an environment for web development through its adoption by some major web entities. Paypal, for example, are currently moving their entire platform to Node.²⁹ Netflix³⁰, LinkedIn³¹, and the New York *Times*³² are other examples of companies using Node as part of their web services.

After Node is installed, programs written in JavaScript can be executed on the command line using the 'node' command. Additional modules (programs created by other developers) can be installed using Node Package Manager (npm).³³ In the Melmoth Mean App, the core Node file is the server.js file. This file can be launched from the command line using Node and this file will in turn launch the entire app. This file calls in a number of modules and creates an instance of an Express app. This file also connects to the MongoDB database, hosted on MongoLab. The details of this

²⁸ <https://jquery.com/>

²⁹ See Druta, "Building With Node.js"

³⁰ See Berteanu, "Building With Node.js At Netflix"

³¹ See Druta, "Building With Node.js At LinkedIn"

³² See Berteanu, "Building With Node.js At The New York Times"

³³ For an introduction to npm see Dierx, "A Beginner's Guide to npm - the Node Package Manager"

database reside in the `config.js` file; these details are called in as an argument on `mongoose.connect`. This file is also used to setup routes for the API. These routes come from the `chapter.js` file and are appended to `‘/edition’`. These routes will allow access to the edition’s underlying data. Currently, this API only allows GET requests but can easily be extended to allow for PUT, POST, and DELETE requests and thereby fulfilling the requirements of a RESTful API. The `server.js` file also sets up a ‘catch-all’ route that will be serve the `index.html` file to every route that does not match route in the Angular collection of routes (more on this below). The `index.html` file is the main html in the Angular app and all other views are injected into this main view. Finally, the `server.js` file will beginning listening on Port 8080 (as defined in the config file). This means that, once the `server.js` file is running, the app can be accessed locally by navigating to <http://localhost:8080/> in a browser.

In the Melmoth Mean App, Express is used to create an API that interacts with the database and serves the JSON data stored there. Angular (and any other service) can then consume the data served by the API and display it. Express is used to define a route, for example `‘/edition/text’`, from which the JSON data can be accessed. One of Node’s most popular modules is Mongoose, which is a module used to model data and to interact with a MongoDB database. Mongoose requires a user to define their data model within their app; this is then treated as a schema to which the linked database adheres. Figure 2.4 shows a Mongoose model for the edition text. Express uses this model to interact with the data in the database. The database is hosted on MongoLab.com, using a free Sandbox account. Currently, items are added to the database by uploading them using MongoLab’s interface. The Melmoth API has not currently been extended to allow for POST requests, which would allow for items to be

```

var mongoose = require('mongoose');
var Schema = mongoose.Schema;

var editionSchema = new Schema({
  chapter: {
    chapter_number: String,
    chapter_title: String,
    chapter_type: String,
    epigraph: {
      quote: String,
      bibl: String,
    },
    paragraphs: [{
      text: String,
      editors_note: String,
      summary: String,
      paragraph_id: String
    }],
    endnotes: [{
      keyword: String,
      endnote_text: String,
      endnote_id: String,
      image_url: String
    }]
  }
});

module.exports = mongoose.model('Edition', editionSchema);

```

Figure 2.4. Mongoose model of the text

uploaded directly from the app, but this functionality could be easily added in a future update.

While NodeJS sets up the environment in which the app can launch and operate overall, and Express and Mongoose and MongoDB are all concerned with modelling, storing, and allowing access to data, Angular is where a user interface for that data is created. AngularJS is a JavaScript web framework that extends HTML in order to allow for the quick and easy creation of dynamic web views. Angular is maintained by Google and is currently most widely used as version 1.x but a heavily updated version 2 is expected to be launched soon. Angular is not the only JavaScript web framework

available (others include EmberJS³⁴ and Facebook's ReactJS³⁵) but it has the most momentum behind it.³⁶

One of the advantages in using a framework like Angular is that it adopts a MVC framework. MVC, which stands for Model View Controller, is an organisational and design philosophy that separates the different functions of an application, which makes maintaining the app easier. In an MVC framework, the Model is responsible for the data, the View is responsible for displaying that data, and the Controller is how the Model and the View pass data to one another. In Angular, the Model comprises Services and Factories which are used to grab data from external sources (MongoDB in this edition's case). The Controller function in Angular is carried out by Angular modules called Controllers and these take in the data from the Model and pass it to the View. Controllers in Angular can also be used to write functions and filters that can be used in the view in order to manipulate data. The View in Angular is the HTML. Another advantage with Angular is that it is heavily modular, meaning that, in terms of Views, different pieces of HTML can be reused for different web pages. This cuts down on the amount of HTML that needs to be written for an application.

Angular derives much of its power from its two-way data binding and its directives. Any given part of an angular app will reside in a particular scope. The scope controls what kind of data is available in the view. A scope is simply a JSON object. Data from that object can be sent to the DOM, using a controller, and data can be

³⁴ <http://emberjs.com/>

³⁵ <http://facebook.github.io/react/>

³⁶ For a discussion on the increasing popularity of Angular see Asay, "Among Web-App Developers, AngularJS Is Gathering Steam" < <http://readwrite.com/2015/03/09/angularjs-backbonejs-javascript-frameworks> >

```
<div ng-repeat="para in doc.paragraphs | filter:searchText" class="row text-justify">
  <p class="para" ng-bind-html="para.text | highlight:searchText" id="{{para.paragraph_id}}"></p>
</div>
```

Figure 2.5. ng-repeat example

updated in the DOM and sent back to the controller. This is Angular's two-way data binding. A directive is a html element or attribute that creates a certain behaviour. Angular comes with a number of pre-defined directives but much its power resides in the fact that developers can create their own custom directives. An example of a directive that comes with Angular is the ng-repeat directive. This directive iterates through an array of data and marks up that data using HTML of the developer's choosing which is then updated in the DOM. This means that a single piece of markup can be applied to a large swathe of data. The JSON-encoded text of *Melmoth the Wanderer* is taken from the MongoDB database by a service module. This data is then injected into the controller which in turn injects it into the view. Each paragraph in the JSON encoding is its own JSON object. Using ng-repeat we can, using a single paragraph element, tell the browser to apply that element to every single paragraph in the novel. This is similar to XSLT in which a template can be applied to a particular element and repeated for every instance of that element in the XML. Figure 2.5 shows how the entire text can be generated in the DOM using only a few lines of HTML. In this example, doc.paragraphs is an array of paragraph data that contains objects that themselves contain the text of the paragraph as well as other information such as ids. Using Angular, we can iterate through each paragraph object and create a div for every single one. We can then iterate through each paragraph object and render the text, using para.text, inside paragraph tags. We can also access the paragraph_id associated with each paragraph object and add it to each paragraph tag as an attribute.

```
angular.module('editionService', [])  
  
  .factory('Edition', function($http) {  
  
    // create a new object  
    var editionFactory = {};  
  
    editionFactory.all = function() {  
      return $http.get('/edition/text/');  
    };  
    // return our entire userFactory object  
    return editionFactory;  
  
  });
```

Figure 2.6. Edition service

But Angular is much more powerful than XSLT because the user can continue to manipulate the data once it has been instantiated in the DOM. A simple but powerful example of this is through Angular's filter component. Using an Angular filter we can take in a user input and update the DOM based on that input. Put simply, a user can enter a search term and the DOM and browser window will update and return only the paragraphs that contain that term, without ever sending a new request and without ever having to wait for a response; the entire process happens on the client side. Directives are Angular's most powerful feature but it is also the feature with the steepest learning curve.

As mentioned, Angular grabs the data for the edition from the Express API using a service module. This module returns a Factory Object that can be called accessed by the Controller. Figure 2.6 shows how a service can grab that data from the API defined by Express. In this example, a function is created that takes the data that resides at /edition/text (as described above, this route was defined as part of the API using Express) and stores it in the editionFactory object, which is then returned. This entire module is

then injected into the chapterCtrl module so that the controller can access the data. Figure 2.7 shows how this is done.

Angular is also used to set up routes for the app. Index.html contains the HTML code that will get wrapped around every view generated by the app. The <ng-view> element in the index.html file will be replaced by whatever view is called up according to the app.routes.js file. Node works with Angular by calling up Angular's index.html file once the app is accessed by a user. At this point, Angular takes over and administers the routes as defined in app.routes.js file. When a url is requested by a user, Angular will look for a match in its routes file and will inject the corresponding HTML into the view. If there is no match, Node takes over and brings the user back to the index.html file. As far as the browser is concerned, the only file that is ever requested as part of the app is index.html and, once this has been loaded, any new responses are delivered dynamically and in real-time by Angular, which simply injects the requested HTML into the view. This means that HTTP requests, which can slow down navigation, are non-existent, apart from the initial request that calls up the index.html file. The data, however, still needs to be called up from the database, so browsing is not quite as fast as it would be if all the data were already in the HTML files.

```
angular.module('chapterCtrl', ['editionService'])
  .controller('chapterController', function(Edition, $http) {
    var self = this;

    Edition.all()
      .success(function(data) {
        self.editions = data;
      });
  });
```

Figure 2.7. Chapter controller - Service

As the app is being built it is constantly being pushed to GitHub.³⁷ Git is a program that allows for version control of a program or application. GitHub is a site where each new version, and all past versions, of a program or app can be stored. Git also acts of a document of the complete creation of the app from start to finish. By making their git repository public, an editor can allow others to access the entire path travelled in the creation of the edition. This means that not only the code of the app preserved but the entire process in creating the app is preserved too. Git also aids in collaboration. Users can fork repositories in order to add their own features and to develop the app in a different direction. Further, by making this edition of *Melmoth the Wanderer* available on GitHub, other scholars and editors could take the code of the app and built a similar edition based on a different text.

By using GitHub, the app can also be easily deployed to Heroku.³⁸ Heroku is a cloud application service for building and deploying web apps. The app can be pushed to Heroku in the same way that it is pushed to GitHub. Once the app has been pushed to Heroku, a url is issued where the live version of the app can be accessed. The advantage of Heroku, especially for non-experts in web development and deployment (as scholarly editors are likely to be), is that it takes care of the complete deployment of an app with a single command. Updates are equally simple and are carried out by pushing your changes to your git repository.

The entire separation of concerns for a MEAN app can be broken down as follows: Node sets up the overall environment in which the app can operate, Express creates an API for accessing data, MongoDB is the database where the data is stored

³⁷ <https://github.com/>

³⁸ <https://www.heroku.com/>.

(Mongoose is used to model this data), and Angular uses the Express API to grab the data from the database and inject it into the HTML, while also controlling how a user can interact with that data. The front-end design of the app is then controlled using CSS and Bootstrap.

5. Twitter Bootstrap and Responsive Design

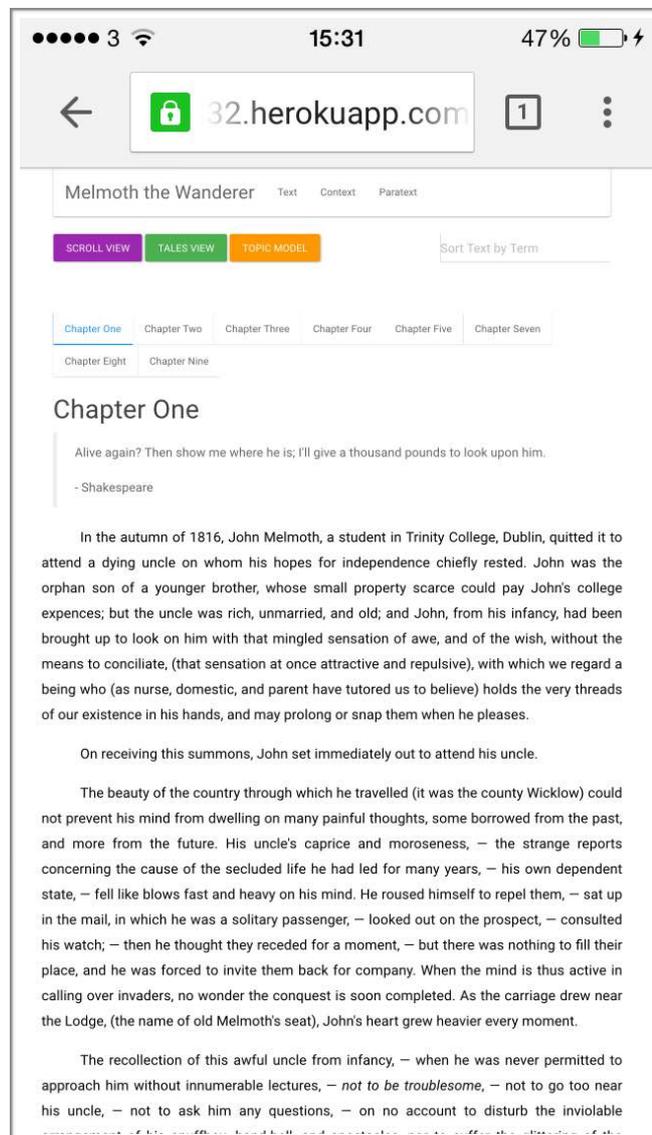


Figure 2.8. Smartphone-sized view of the edition

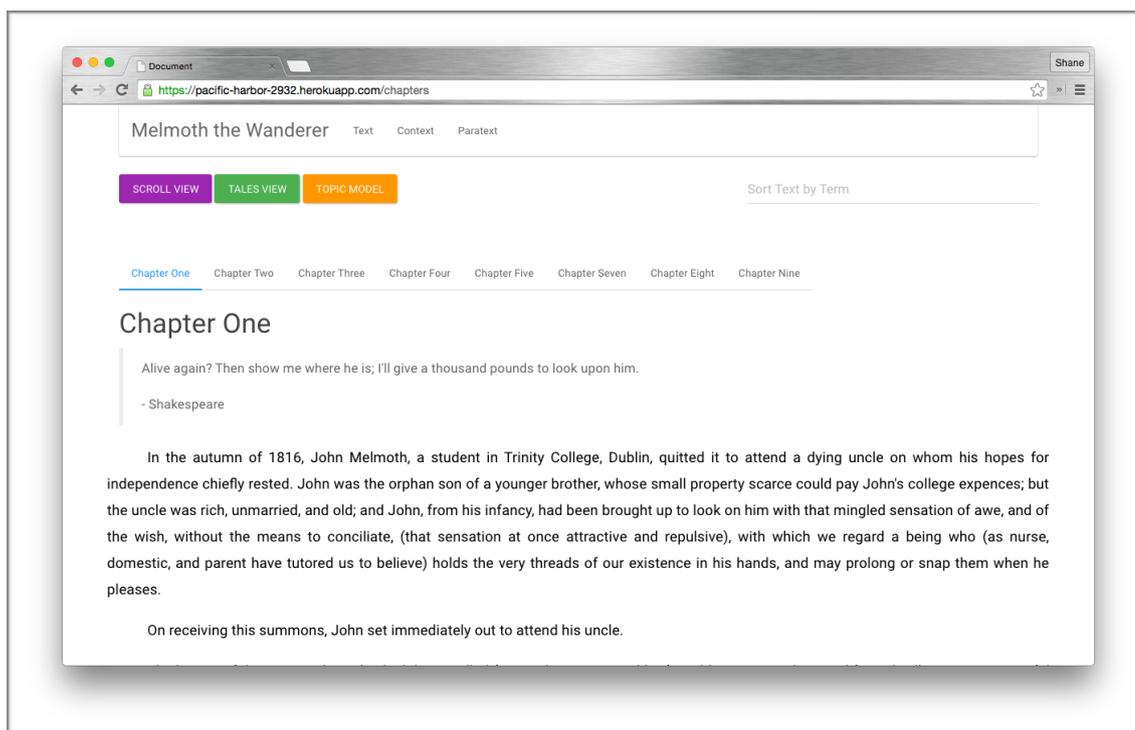


Figure 2.9. Desktop-sized view of the edition.

Bootstrap is a front-end design framework that simplifies the creation of responsive web sites. Also referred to as Twitter Bootstrap, it was created by a number of engineers working at Twitter.³⁹ Modern websites and web applications need to be mobile-friendly. Google has recently announced that websites that are not mobile-friendly will be disadvantaged in its searches.⁴⁰ Responsive web design is a necessity for digital critical editions, particularly because users are increasingly accustomed to reading all kinds of texts on a variety of different devices. A responsive website will adapt depending on the size of the screen being used to access it.⁴¹ This means that a website will operate as efficiently as possible across a variety of devices: smartphones, tablets, and desktops. Figure 2.8, for example, shows the chapter view of the Melmoth App as it appears on a

³⁹ <http://getbootstrap.com>

⁴⁰ See Makino et. al, "Finding More Mobile-Friendly Search Results".

⁴¹ For a basic introduction to responsive web design see the W3C's tutorial at http://www.w3schools.com/css/css_rwd_intro.asp.

smartphone screen while figure 2.9 shows how it appears to someone using a larger desktop-sized screen.

Adopting a front-end web framework, such as Bootstrap, can take a lot of pain out of the creation and design of websites. Professional looking and usable websites are easily achievable in this way. Further, there are a number of freely available custom themes that can be used and tweaked. This edition of *Melmoth the Wanderer* uses the Paper theme for Bootstrap.⁴² Bootstrap does not work with Angular “as is” but an Angular customisation of Bootstrap called Angular-UI is available that allows Bootstrap to be integrated with an Angular app.⁴³

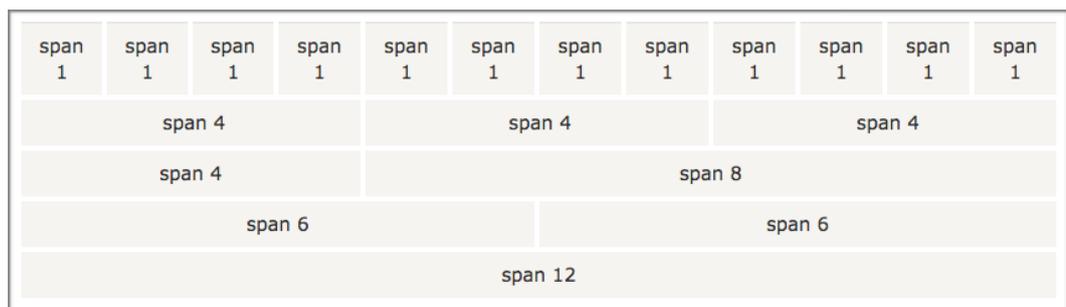


Figure 2.10. Bootstrap’s grid layout.

Source: http://www.w3schools.com/bootstrap/bootstrap_grid_basic.asp

Bootstrap uses a grid system comprised of rows and columns. Designers can choose to use up to 12 columns per row and can use as many rows as they like (see figure 2.10). This grid system is also responsive meaning that columns will rearrange depending on screen size. Bootstrap comes with four classes that designers can use for four different screen sizes: xs for phones, sm for tablets, md for desktops, and lg for larger desktops. Using Bootstrap, features such as buttons, tabs, wells, jumbotrons, and navbars, among others, can be easily plugged in to a website.

⁴² <https://bootswatch.com/paper/>

⁴³ <https://angular-ui.github.io/bootstrap/>

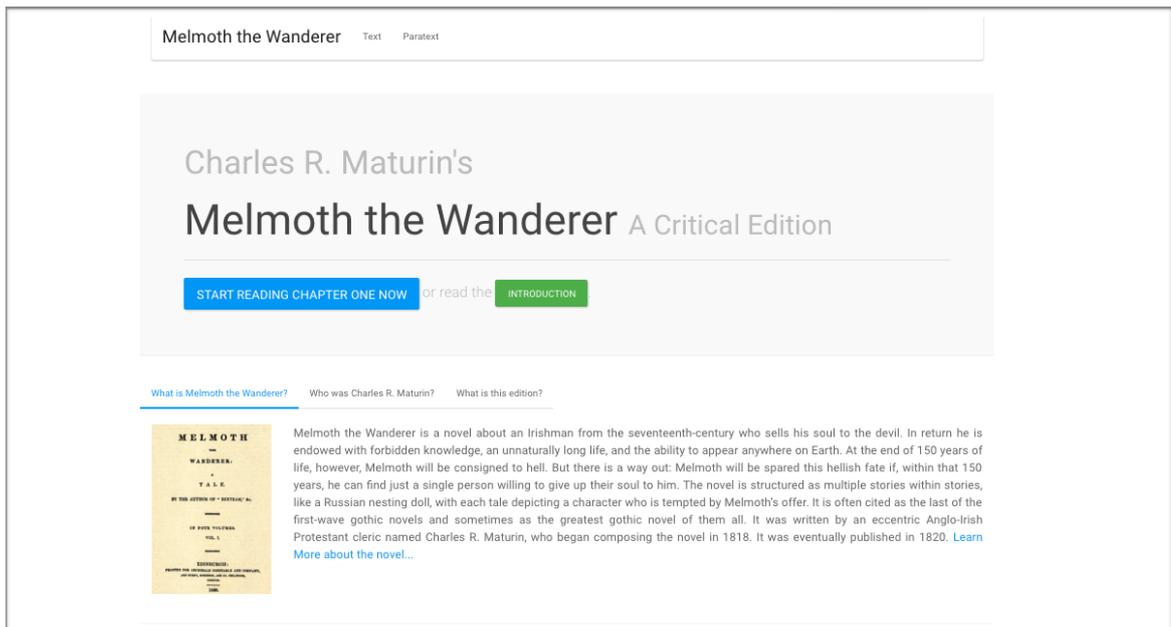


Figure 2.11. Homepage

As an example, figure 2.11 shows the edition homepage. This is the page that greets users when the first arrive at the edition. The edition is clean and functional. A navbar is fixed to the top of this page and every page in the edition allowing for quick navigation throughout the edition. Prominent on the homepage is a blue button (this is Bootstrap's "button-primary" class) marked "START READING CHAPTER ONE NOW". This button brings the reader straight to the first chapter of the edition. This button eliminates confusion and gets the user to the text as quickly as possible. Users are also offered the choice of navigating to the "Introduction", although this is less prominent. The aim here is to highlight how to navigate to the text first and the paratexts second. The large, grey well on this page is generated from Bootstrap's "Jumbotron" class. The aim here is to give an unambiguous title to the page that clearly indicates what this site is and does. A selection of tabs are placed beneath the jumbotron. This offers the user the choice to read a small, carefully organised selection of brief textual information about the edition. This information is tabbed so as not to

overwhelm the user with text on the homepage. These tabs offer information in response to the questions “What is *Melmoth the Wanderer*?”, “Who was Charles R. Maturin?”, and “What is this edition?”. By clicking on either the blue “Start Reading” button or the “Chapters” link in the navbar, the user is brought to the text. Again, because this edition was designed using Angular, no HTTP request is made nor no response is received after clicking these links. Instead, the navbar will remain on the page while the requested view is injected into the DOM. This speeds up the navigation process while giving the users the impression that they are dealing with a fluid and whole application.

The future of the digital critical editions depends on an increased focus on design and on the usability of editions. If digital critical editions are simply designed as a selection of texts and paratexts connected to an apparatus by way of hypertext, while retaining unnecessary features from the medium of print, then they will continually fail to find an audience online. Hypertext alone is not a sufficient departure from print scholarly editing to justify the creation of a digital critical edition. The decline of deep reading practices in the online environment also suggests that such an edition would not see the type of engagement from users that a critical edition requires. Digital critical editions need to be designed as usable editions that offer users different ways of viewing and accessing the core text. This is what this edition of *Melmoth the Wanderer* aims to achieve. It is an exciting time for web development. Both Node and Angular are continuing to grow and evolve. The launch of Angular 2.0 is not far off. Bootstrap is forging ahead with a new aesthetic for the Web. All of these technologies can contribute to the creation of usable editions that offer a different user experience than their print counterparts. Of course, building a digital critical edition in this way is not without its

problems, the most notable of which are the steep learning curves and the fact that these technologies favour JSON, a data format not entirely suitable for the encoding of a literary text. The next chapter discusses this problem.

Chapter Three

Data: XML and JSON.

This chapter looks at encoding. Making the text of an edition machine-readable is an essential step towards creating a digital critical edition. Because of the technologies used to create this edition, the text is required to be encoded in the JSON data format. XML, however, is the de-facto standard for the encoding of texts in the humanities. In particular, the guidelines designed by the Text Encoding Initiative (TEI) are the particular implementation of XML most widely adopted in the humanities. This first part briefly looks at the TEI in order to contextualise the subsequent passages on JSON. It looks at some different examples of how editions have been generated out of TEI encodings. The next part looks at the rise in popularity of JavaScript for web development and JSON for data transfer across the Web and considers if this will have an impact on the digital humanities, where the encoding standard is XML. The final two parts of the chapter, 3.1 and 3.2, looks at two specific issues relating to the creation a JSON encoding of a digital critical edition. The first is JSON's inability to deal with mixed textual content as effectively as XML. The TEI recommends an XSLT transformation for generating JSON from a TEI encoded text, but there are some complications that arise out of creating a JSON version of an XML encoding that contains mixed content. The second issue discussed is JSON's ability in dealing with cases of overlapping hierarchies. *Melmoth the Wanderer* contains two competing hierarchical narrative structures¹ and this chapter discusses two potential solutions to

¹ These structures are a chapter-based structure and a structure based on the novel's individual tales.

this problem: the first is the creation of multiple encodings and the second is a solution that utilises AngularJS and JSON.

1. XML

The standard for encoding texts in the humanities are the guidelines designed by the TEI. These guidelines are currently a standardised set of tags and rules for the eXtensible Markup Language (XML). The origins of the TEI can be traced back to 1987 when its foundational meeting was convened in order to address the problem of interoperability of computer data within the humanities. This meeting was necessary because the archives and tools being created by computing humanists were often unsustainable. Different scholars would use different systems to carry out their work and the data generated as part of this was usually incompatible with other scholars who were working with different systems. Data could not be shared and the potential for the preservation of data was low. The creation of common tools was so impractical as to be impossible. As Lou Burnard points out, these problems existed because different computer manufacturers “could impose their own conventions for the structuring and representation of textual data” (3). Multiple proprietary file formats and custom encoding schemes led to a situation where even the simplest of data transfers between systems could contain a number of serious technical issues. These problems were seen as major obstacles to the progress of humanities computing and the meeting at Vassar College was called in order to address them. The meeting was sponsored by the Association for Computers in the Humanities and brought together scholars from a variety of disciplines and institutions from Europe, North America, and Asia (“TEI:

History”). The goal of the TEI was to create a common standard for the encoding of humanities textual data in order to facilitate the re-use and exchange of that data. Burnard points out that the TEI also had the objective of making its proposals accessible to both novice and expert users. This additional objective sets it apart from other standardisation efforts and gives the TEI its “distinctive nature” (Burnard 3). The TEI evolved over the next three decades to become the standard for text encoding in the humanities and the majority of digital scholarly editions being created today begin as TEI-compliant XML encodings.²

XML is a mark-up language in the same way as Hypertext Markup Language (HTML), the language used to create web pages. Much like punctuation gives humans additional information in how to interpret a text (such as using a ? character to indicate that the preceding sentence was a question or using a . mark to indicate the end of sentence) markup gives computers additional information required to process a text.³ Or to put it more accurately, XML markup provides both humans and computers with a common reference system for some piece of textual content. This then allows us to do things with that content. We write a piece of software to manipulate in some way, we can query our data, we can transform it into HTML, we can transmit it, and we can store it. Most importantly, however, it allows us to re-use data. And because XML is a markup language, it is well-suited to handling the encoding of mixed textual content that is inherent in humanities texts.

² To learn more about the TEI see Burnard, *What is the Text Encoding Initiative?*. This book is free and open source and available at <http://books.openedition.org/oep/426>.

³ For an introduction to XML see Myer, “A Really, Really, Really Good Introduction to XML”, Flynn, “The XML FAQ, or the TEI’s “A Gentle Introduction to XML”.

There are various ways that an XML encoding can be utilised in the creation of an edition. Using XSLT (eXtensible Stylesheet Language Transformation), an XML document can be transformed into HTML, or a PDF, or another XML document. An excellent example of the power of XSLT is Elena Pierazzo's genetic Proust experiment.⁴ This edition allows users to view the process by which Proust created a section of written manuscript. The entire project, although it only represents one page of manuscript, was generated from an XML encoding using XSLT. Another example of how XML has been used to generate an edition is demonstrated by *Vincent Van Gogh: The Letters*, a web-based critical edition of letters written by Van Gogh.⁵ The web edition was created using the Ruby programming language. Two programs were created as part of this edition of Van Gogh's letters. The first generates the static HTML for the web edition from the XML encodings of the letters as well as an index of the entire archive of letters. The second program is used to generate a web server used to handle searches and serve data from a database that was also created as part of the edition. A further example of a project that uses the TEI in order to generate an edition is *The Digital Vercelli Book*, where the text is encoded in TEI and then transformed into JSON using a custom stylesheet in order to perform DOM manipulation (such as highlighting) and in order to aid searching.⁶ This is similar to the way JSON is used in this edition of *Melmoth the Wanderer*.

In order to make a text machine-readable we need to be very explicit about what a text actually is. The task of encoding texts in the humanities forced scholars to

⁴ http://research.cch.kcl.ac.uk/proust_prototype/index.html

⁵ <http://vangoghletters.org/vg/>

⁶ <http://vbd.humnet.unipi.it/beta/>

confront questions they perhaps had not explicitly answered until then. These questions concerned the relationship between the concepts of text, work, and document. As McGann notes, when we are addressing issues of digitisation and markup and editing for the digital medium, we need to keep in mind the many and shifting meanings of the word “text”. This is because translation of print materials into the digital medium means we are “called to a clarity of thought about textuality that most people, even most scholars, rarely undertake” (*Republic* 90). In other words, the process of marking up text forces us to be very explicit about what actually constitutes that text. However, the encoding of print texts involves compromises. We do not simply need to be explicit about what a text *is*, we need to be explicit about what a text is in such a way that it can be processed by a computer. Dino Buzzetti puts it one way when he states that “the computational notion of the text as a type of data does not coincide with the notion of the text as a product of literary activity” (Buzzetti 61). Ramsay puts it another way when he says that “[w]e murder to compute” (Ramsay 68). What this means for digital scholarly editors is that their editions must conform themselves in such a way that they are expressible in XML and, because XML is design upon the principle of a particular conceptual model, editors will find themselves having to make compromises. These concerns are the same for JSON, which is arguably less suitable for the encoding of mixed content in large amounts of text, such as is found in a critical edition.

While the text of *Melmoth the Wanderer* was being transcribed, it was also encoded in TEI-compliant XML, in order to facilitate the sharing of the edition’s data. The textual features encoded in the text were basic. They included paragraphs, textual decoration (usually italics), footnotes, epigraphs, and titles. The encoding was not

document-orientated and features of the document were not encoded. The text was encoded as a continuous text, not split on page or line, but split on chapter and volume. Endnotes are encoded as ref links; the phrase to which the endnote refers are surrounded by “ref” tags with the type “endnote” and with the “n” attribute which contains an id. This id is shared by the corresponding endnote which are encoded as lists of items in in the “back” tags at the end of the encoding. Overall, this is a simple encoding that requires just a small selection of the wealth of elements and attributes provided by the TEI.⁷

Because this edition was built using JavaScript, the textual data is required to be in JSON format. The intention was to use this text to generate the JSON data using an XSLT transformation recommended by the TEI. However, as described below, transforming XML to JSON can be problematic in terms of mixed content, which JSON does not handle well. Ultimately, the TEI encoding was simply used to generate static HTML, in order to maintain decorative features such as italics, which was then included in the JSON encoding. The next section discusses the rise in popularity of JavaScript and JSON and considers whether this is a problem for the digital humanities before discussing some specific issues concerning the creation of a JSON encoding of the text of a critical edition.

2. JSON

In May 2015, HathiTrust released a dataset containing the text of over 4.8 million volumes from its digital library.⁸ Interestingly, this data was not encoded in XML, the

⁷ See <http://www.tei-c.org/release/doc/tei-p5-doc/en/html/REF-ELEMENTS.html> for the TEI’s complete list of elements.

⁸ See the “HTRC Extended Features Dataset” at <https://sharc.hathitrust.org/features>

standard data format for humanities data, but was instead encoded in JSON. This release prompted Desmond Schmidt, a textual critic and software developer, to post to the *Humanist Mailing List* and ask if this release signalled that it was time to move on from XML. Schmidt argued that the JSON vs XML debate was part of “a much wider movement on the Web to simplify the technologies that underlie it” (“Billions of pages”). He pointed to web services such as REST, web technologies like NodeJS, and document-orientated noSQL databases as evidence that the Web community is moving away from the complexity that comes with XML and its related technologies and towards a simplified Web with JSON at its heart. Schmidt writes that recent developments in the Web community indicates that there is now “a strong desire to comprehend the Web as a technical whole, rather than muddle through the hodge-podge of discordant and endlessly varied technologies, all screaming for attention, that have characterised the early years of Web development” (“Billions of pages”).

Schmidt is right to highlight the growing prominence of JSON as a data format and the potential problems this might have for the digital humanities, where the majority of textual data is encoded in XML. His prediction about a general move towards a simplification of web technologies is plausible, though it remains to be seen if such a move would prompt the digital humanities to abandon XML in favour of JSON. The data in the HathiTrust dataset is metadata and JSON has no problems in dealing with such data. But in terms of a digital critical edition, for example, is it profitable to encode all of its textual data in JSON? The advantage of encoding a text in JSON is that an editor can utilise some of the web technologies that Schmidt is talking about: NodeJS, REST, noSQL. But there are disadvantages in that JSON does not handle mixed content, such as italics and other text decoration, as well as XML handles such

content. Stephen Ramsay argues “[w]e murder to compute” but is JSON more murderous than XML (Ramsay 68)? Failing to represent text decoration in a critical edition of a text would be unthinkable.

JavaScript is gaining increasing credibility as an efficient and powerful language for creating web applications. Whereas once JavaScript was mainly seen as a way to quickly add interactivity to a site without having to know much about how it works or how to write it, it is instead now possible to write an entire web application using JavaScript from the front end to the back end. An analysis of recent projects on GitHub shows that projects built using JavaScript outstrip even projects built using Ruby, once considered as the de-facto language, with its accompanying frameworks, for the creation of web applications.⁹ JSON was designed to mimic JavaScript's object notation and so is a natural fit for projects built using JavaScript. A rise in popularity of JavaScript means a concurrent rise in the adoption of JSON as the web development community's preferred data format.

An issue that humanists working with digital data will begin to encounter more and more frequently in the coming years is the growing adoption of JSON and its increasing popularity as the web's standard data format. JSON was specifically designed to rival XML. The official JSON website claims that JSON is simpler than XML, more human-readable, and has no need to be extended, making it a better choice for encoding data than XML. In 2010 James Clark, the technical lead of the working group that developed XML, stated his belief that, while XML was not going to go away, it would be used less and less as a web technology. In a blog post he wrote that “the

⁹ Ruby is described as a “dynamic, open source programming language with a focus on simplicity and productivity. It has an elegant syntax that is natural to read and easy to write” (<https://www.ruby-lang.org/en/>). Ruby On Rails is the the web framework built on the Ruby programming language (<https://www.ruby-lang.org/en/>).

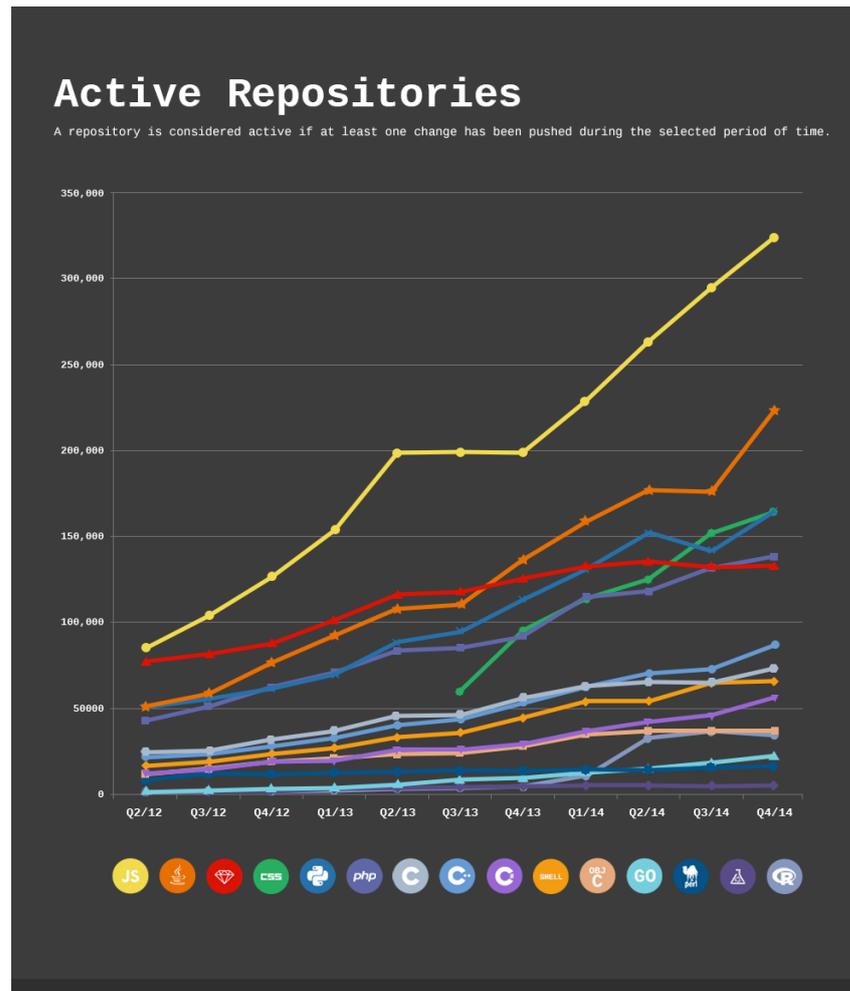


Figure 3.1 Javascript's Rise. Source: <https://www.loggly.com/blog/the-most-popular-programming-languages-in-to-github-since-2012/>

Web community has spoken, and it's clear that what it wants is HTML5, JavaScript and JSON” (Clark, “XML vs the Web”). JSON stands for JavaScript Object Notation and is derived, as the name suggests, from JavaScript’s syntax for describing objects. JSON is therefore a good fit when working with JavaScript. The evolution of JavaScript from primarily a language that could be taken in bits and pieces from libraries in order to add functionality to a site to a language that can be used to build an entire web app, from the front end to the back end, has established both JavaScript and JSON as two of most popular technologies among web developers. Figure 3.1, for example, shows the number of active repositories for each major programming language on GitHub. The

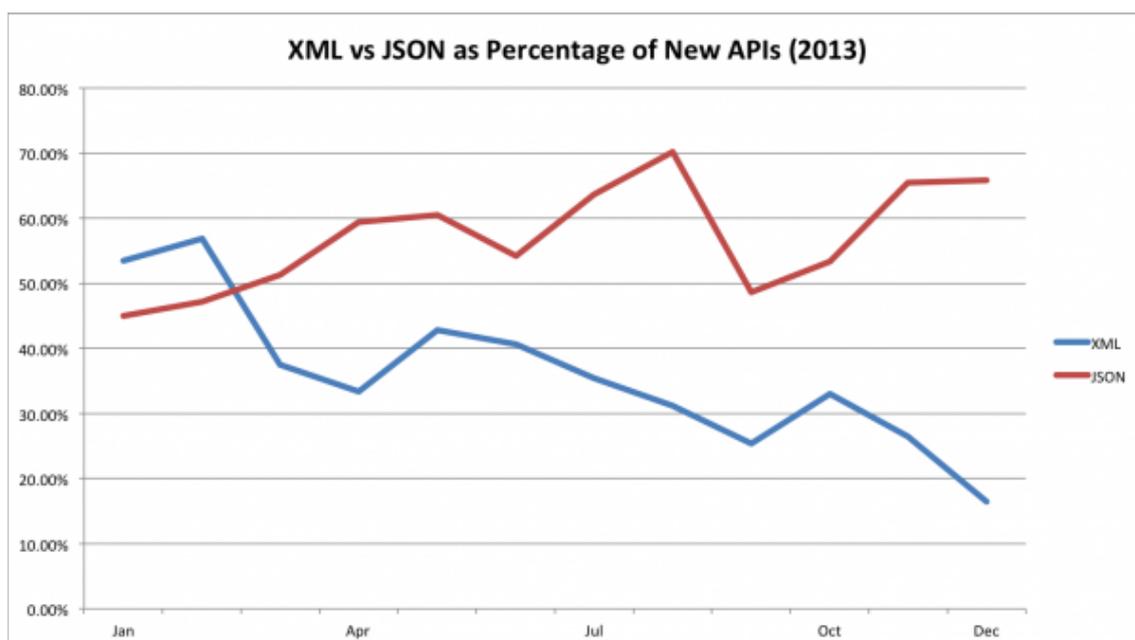


Figure 3.3. Source: <http://www.programmableweb.com/news/jsons-eight-year-convergence->

most striking feature of this graph is the continued rise of JavaScript over the past two years. Figures 3.2 and 3.3 show graphs derived from data taken from the *ProgrammableWeb*'s API database. It shows the ground the JSON has gained on XML when it comes to overall APIs and it shows how JSON outstripped XML throughout 2013 as the data format of choice for new APIs.

The reasons for JavaScript's and JSON's rise in popularity are 1) the development of NodeJS, which allows JavaScript to run outside of a browser, 2) the increasing importance of APIs and the fact that major web companies, such as Twitter, have completely abandoned XML and that the Twitter API now solely provides its data in JSON, 3) the development of NoSQL databases such as MongoDB which uses a data format called BSON which is based heavily on JSON and 4) the development of web frameworks such as AngularJS, which exchange data between view, model, and controller in JSON. It is also due to the eventual outcome of the development of these new JavaScript technologies which was the streamlining of web development projects

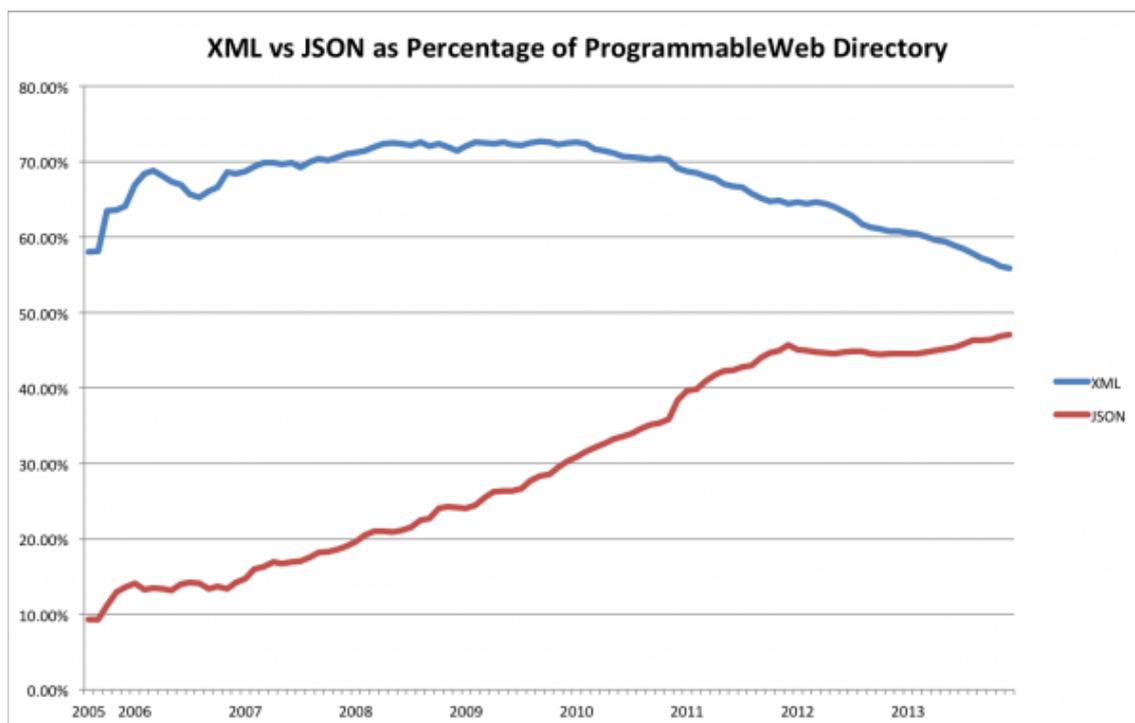


Figure 3.2. Source: <http://www.programmableweb.com/news/jsons-eight-year-convergence-xml/2013/12/26>

through the adoption of a single scripting language, JavaScript, for all aspects of a web application, from the front end to the back end.

The TEI guidelines offers little guidance for the encoding of humanities texts in JSON, except for some recommended XSLT transformations. The over-reliance on a single data format could potentially be damaging for the digital humanities and for the type of projects that are possible within the field, especially considering the current trends concerning JavaScript and JSON in the wider web development community. The TEI is a great resource and project, it delineates so much of what a printed text or a print document is and how it can be represented in XML. And, of course, once a text has been encoded in XML, following the TEI guidelines, there is much that can be done with it in terms of data storage, transmission, and transformation. However, it is not always feasible or straight-forward to transform an XML encoding into a different data format such as JSON. which is a requirement for this particular digital critical edition of

Melmoth the Wanderer. XML is an excellent data format for highly structured data, such as complex humanities texts, and it handles mixed content much better than JSON. But the choice of a data format for a project is not always dictated by what format is the best fit for the representation of your data. Instead, the choice is often influenced, if not decided outright, by the type of technologies you wish to use to realise your project. It would be of great benefit to the digital humanities if the TEI community began the work of extending its guidelines to JSON. This would then aid digital humanists who wish to take advantage of the many tools, frameworks, and environments that either work best with JSON or are designed to work specifically with JSON. Such a move would also safeguard against a future where JSON becomes the standard format for the transfer of data across the web.

3.1 Encoding 1: JSON and mixed content

There are some issues, however, with using JSON to encode humanities texts. The main problem concerns mixed content and inline elements. XML is better suited to encoding large tracts of texts because the text itself can contain further elements that mark up pieces of text as in some way distinct from the rest of the text that surrounds it. A piece of text can be marked up as a paragraph and certain parts of that text can be marked up as italics, or as referring to a footnote. In JSON, this can be done but only by breaking up the text in the paragraph. A paragraph can be encoded in JSON as its own object which contains the text of that paragraph, but if parts of that paragraph need to be encoded as distinct from other parts of that paragraph, then things can become a little difficult. A piece of text within a paragraph that needs to be denoted as ‘italicised’ must become its own object so that the paragraph object then becomes a mixed array of

strings and objects. Paragraphs, represented by matching `<p>` tags, can contain both text and other elements; `<i>` tags indicate when a piece of text is to be rendered in italics. The text within the `<i>` tags, however, remains within the flow of text. In JSON, things are not that simple. In translating XML to JSON, elements are converted to JavaScript objects. This can result in inline elements being take out of the flow of the text. For example, an XML element along these lines:

```
<p>This is a piece of text and <i>some</i> of it is in italics.</p>
```

would be mapped to JSON as something like this:

```
{
  "p": ["This is a piece of text and", {"text": "some", "rend": "italics"},
  "of it is in italics"]
}
```

Here, the paragraph becomes a JavaScript object. Its key is `"p"` and its value is a mixed array of strings and an object. The piece of the text in italics in the XML must now become an object in its own right with a new key/value pair to represent the text and an additional key/value pair to represent how it is to be rendered. This increases the size of the data while also making the data model less human-readable. It also takes some of the text out of the flow of the paragraph text. The obvious solution to this is to mix XML or HTML content with JSON so that you end up with something like this:

```
{
  "p": "<p>This is a piece of text and <i>some</i> of it is in italics.</p>"
}
```

}

This is not ideal but it does solve the problem of representing italicised text in a web page when that text is read from a JSON file.

The more inline elements required then the less suitable JSON becomes for an encoding. This edition of *Melmoth* was a good fit for JSON because it did not require any elaborate encodings. If a text contains many complex textual features then the TEI is a good fit because it means the encoder does not have to invest time in modelling their data, much of the work has already been done for them. Manuscripts that contain numerous deletions, additions, and marginalia, for example, are well-suited to being encoded following the TEI guidelines. The TEI is less important for more “straight-forward” texts but it is still good practice to encode them following the TEI guidelines, in order to facilitate the sharing and storing of data. The TEI Header, which is also defined by the guidelines, is also a detailed and excellent method of storing metadata related to the edition.

There is always the potential to transform XML into JSON and vice versa, and the TEI recommends a particular XSLT for doing so.¹⁰ But, again, this ignores the problem of mixed content. JSON does not express itself in the same way as XML, and does not “map” perfectly. Such transformations often result in unintended consequences when mixed content in XML is broken up into discrete objects in JSON.

3.2 Encoding 2: JSON and the database model of textuality

¹⁰ The TEI XSL stylesheets are maintained on GitHub: <https://github.com/TEIC/Stylesheets>.

There are critiques of the suitability of XML for the encoding of humanities texts because of its adherence to the document model. Schloen and Schloen argue that there is a need for humanities scholars to eschew the document paradigm in the digital humanities in favour for the database paradigm. Digital representations of literary and historical texts that are encoded using markup, according to Schloen and Schloen, are limited in the kinds of scholarly work that can be carried out on them. Such representations, usually encoded as a single string of characters, rely too heavily on concepts such as page, line, book, or ledger. Here Schloen and Schloen make a distinction: analogies like page, line, and book are convenient ways to present information to end-users but because of an over-reliance on the document paradigm these analogies are also often used as basic conceptual structures in the design and creation of software in the humanities. Schloen and Schloen argue that strings and tables are 'position-dependent' data structures that, because of their limited dimensionality, do not "represent the full range of scholarly observations and interpretations in a predictable and semantically rich digital form that permits powerful automated comparisons and analyses" (1). Structures within texts and within scholarly analysis of those texts are instead "best represented digitally by means of a properly atomized and keyed database" (5). Further, they argue that nothing would actually be lost in a move from the document-paradigm to a database-paradigm because a properly designed database system could dynamically generate a linear, document-model representation of a text from its own internal text representation.

A text digitally represented as a database, argue Schloen and Schloen, would be a solution to the problem of overlapping hierarchies. Currently, XML-based

representations of a text can only present one single view or reading or interpretation of a text. That is, if a text contains within it two or more competing structures then the encoder must choose which one of these structures is to be represented by the encoding. A poem, for example, could be encoded according to its metrical structure (line by line) or it could be encoded according to its grammatical structure (where lines are ignored and the text is encoded in segments based on sentences). The approach chosen here depends on the use to which the text will be put. If the eventual uses of a digitally-represented text are not known, however, it may be necessary to create multiple encodings of the same text. Such a solution is not favourable, however, because multiple representations of the same text are difficult to maintain without introducing inconsistencies and errors. Further to this, and as Schloen and Schloen point out, there is no way of indicating if and how two encodings of the same text are related to each other. If a user was interested, for example, in examine the relationship between a poem's metrical and grammatical structures in comparison to other poems, Schloen and Schloen argue that this could not be done in the case of multiple XML encodings of the same text.

The most elegant solution to the problem of overlapping hierarchies in XML is through the use of 'stand-off markup'. Stand-off markup separates the text and the elements used to describe it. In this process, a new hierarchy is created through an XML document whose elements do not contain textual content but which contain links to a node in another XML document. Schloen and Schloen argue that the reason this solution is both elegant and popular is because it deviates so heavily from "the original markup metaphor that it no longer belongs within the document paradigm at all" (31).

Stand-off markup, according to Schloen and Schloen, is actually a database solution to the problem of overlapping hierarchies. This is because it involves “the digital representation of multiple readings of a text by means of separate data objects” that are constituted as an interrelated system by means of pointers and links that explicitly connect these various readings. While stand-off markup is an elegant solution to the problem of overlapping hierarchies, Schloen and Schloen argue that the document approach, even when imagined in this way, needs to be abandoned. This is because, they say, it is difficult to manage complex linkages between multiple data objects without software tools specifically designed for this task and so literary and historical texts would still benefit from being digital represented as an atomised and keyed database.

In the case of *Melmoth the Wanderer*, there is a case of overlapping hierarchies in terms of chapters and tales. The text is divided into 39 chapters and six tales; these structures overlap with each other. There are, therefore, two competing primary narrative structures at play in the novel. The first is the chapter-based structure and the second is the tale-based structure. The different tales within the novel run across volumes and chapters. The tales also often begin and end in the middle of chapters with no obvious pattern, resulting in these two different hierarchies. Two potential solutions were pursued in order to solve the problem of how to represent these two different structures in the edition. The first potential solution is to use multiple encodings. This sees two separate encodings being created for each textual structure in the novel. The second potential solution is inspired by the Schloen and Schloen and stand-off markup methods but instead uses JSON as the data format.

For the first method, two separate JSON encodings of the text are created. One follows the chapter structure of the novel and the second follows the tales structure of the novel. The disadvantage of this approach is that it makes the text difficult to maintain. If the text needs to be changed then the two sources need to be updated separately. This makes it easier for errors to occur. A mistake corrected in one encoding, for example, but left uncorrected in the other results in the creation of two different texts.

The second method sees an encoding of the text being atomised at the level of the paragraph with each paragraph in the text forming its own discrete JSON object. This means that additional properties can be added to each paragraph. In the JSON encoding, therefore, properties can be added to each paragraph indicating which chapter they belong to and which tale they belong to. Each chapter can also be given a number indicating their order in the text. When Angular grabs the data from the database, it can be told whether to order the chapter by tale or by chapter. A problem with this approach is that it complicates the encoding and transformation of the non-paragraph structures of each chapter and tale, such as titles and epigraphs. Because of this two further JSON encodings need to be created for the chapter metadata and for the tales metadata. This metadata consists of objects such as titles, epigraphs, and ids. When using JSON and Angular, the HTML templates can indicate when to display the paragraphs that correspond to each individual tale or chapter. This is done using variables. When “Chapter Two”, for example, is selected by the user the variable is set to “2” and Angular will then only display the paragraph text objects where the value of chapter_number object is 2. The advantage of this approach over the multiple encodings approach is that there is a single source encoding for the textual data, meaning that the

text becomes easier to maintain. When a change is required in the text, for example, only a single document needs to be updated, as opposed to the multiple documents that would require updating if multiple encodings were used. However, a disadvantage of this second approach is that the app becomes slower. Using the sort function in the app, for example, is quicker when the data exists in multiple encodings. When the data is coming from a single source, the loading of that data into the DOM becomes sluggish and impacts the usability of the app.

This chapter discussed the encoding of data for digital critical editions. XML is the de-facto standard for encoding humanities data but there are times when humanities scholars require data to be in JSON. Humanities scholars will need to encode their data in JSON if they wish to employ tools such as AngularJS and other JavaScript-based tools frameworks. JSON, however, is not entirely suitable for the encoding of literary texts as it does not handle mixed content as well as XML. Further, with JSON we still encounter the same problems with overlapping and multiple hierarchies as are faced when encoding texts in XML. Scholarly editors therefore need to be aware of the advantages and disadvantages of both data formats when choosing the tools they will use to create and publish their editions.

Chapter Four

Digital Text Analysis for Digital Critical Editions

In the introduction to a special issue of *Digital Humanities Quarterly* on the digital literary, Pressman and Swanstrom posit the existence of a spatial spectrum of the digital literary.¹ At one end of this spectrum exists the work of Jerome McGann and at the other end exists the work of Franco Moretti. The McGann end of the digital literary spectrum represents the problem of materiality in the digital medium, the nature of digital textuality, and the purposes of digital scholarly editing. The Moretti end represents the problem of big data in the humanities, the nature of digital literary criticism, and the purposes of digital text analysis. In other words, at one end of the spectrum, where McGann is placed, lies the practice and the creation of the digital literary (textual criticism) and at the other end, where Moretti is placed, lies the theory and interpretation of the digital literary (distant reading and digital text analysis). This thesis argues that digital critical editions can benefit through increased interaction with the field of digital text analysis, thereby bringing both ends of this digital literary spectrum to bear on one another. Ray Siemens made a similar call in a 2002 article when he attempted to connect the fields of digital text analysis and digital textual criticism (Siemens 259). More recently, Tara Andrews has suggested that large-scale text analysis must drive the development of digital critical editions (Andrews 6). And, as Price and Siemens have argued, while scholars should continue to focus on individual texts, they should also work on locating “meaningful patterns in vast corpora” and on reexamining “individual texts in aggregated collections” (“Introduction”).

¹ See Pressman and Swanstrom, “The Literary And/As the Digital Humanities”

This digital critical edition of *Melmoth the Wanderer* interacts with the field of digital text analysis in a number of ways. Firstly, the use of the text in digital corpora is encouraged and facilitated by making the text available in various formats: JSON, XML, and plain text. Secondly, a corpus of novels contemporary to *Melmoth the Wanderer* was created and topic modelled. Visualisations of these topic models were then included in the edition's paratexts as a way of offering users a context in which to view *Melmoth the Wanderer*. Thirdly, users have the option of sorting the text of the novel according to the terms generated as part of these topic models. This allows users to interrogate the results of the topic models thereby bridging some of the gap between qualitative and quantitative analyses of literature. Finally, a topic model was also created of the novels paragraphs. The results of this topic model were then used to create a "thematic view" of the text.²

This chapter is split into two parts: theory and practice. The first part looks at the theory behind the quantitative analysis of literature and at the work of two important theorists and practitioners of distant reading: Moretti and Matt Jockers. Digital text analysis of literature in recent years has largely taken the form of distant reading where large corpora of texts are analysed by a computer in order to detect underlying trends and patterns. Distant reading is the intersection of literary studies with the wider social and technological problem of "big data".³ Digital critical editions have a role to play in distant reading through the creation of stable and reliable texts for inclusion in literary

² See chapter two for more on this thematic view.

³ "Big Data" is a buzzword used to describe data sets that are so large they cannot be processed using traditional techniques. "Big Data" is a consequence of the Internet age, where vast amounts of data are generated every day. See Blair, *Too Much to Know*, and Weinberger, *Too Big to Know* for two interesting discussions on the consequences of "big data" for knowledge production.

corpora, but that is not the only role available to critical editions in this context. Distant reading is an alternative methodology to close reading in literary studies and critical editions are vital tools for close reading. Digital critical editions may therefore be able to bridge the gap between close reading and distant reading in the humanities by acting as the site at which qualitative and quantitative analysis meet. Katherine Bode has pointed to the mix of qualitative and quantitative methods in book history as a potential example to be followed. The methods of quantitative book historians, argues Bode, employ both close reading and an analysis of statistics with both these methods revealing different information and configurations that the other method cannot (13-14).

The second part of this chapter looks at how distant reading, and topic modelling in particular, was used as part of this edition of *Melmoth the Wanderer*. For the purposes of integrating distant reading with this critical edition, a corpus of 60 novels was constructed as part of this thesis. This corpus includes this edition's text of *Melmoth the Wanderer* as well as 59 other Irish novels published between roughly 1800 and 1830. Two topic models of these novels were then generated using MALLET⁴ and static network visualisations of these models were created using Gephi⁵. These visualisations were then included as part of the edition paratexts, which are collected in the appendices. This chapter also looks at the results of two further topic models: one generated from the novel's tales and another generated from a small corpus of gothic

⁴ MALLET stands for MACHine Learning for Language Toolkit. It was created by Andrew McCallum at University of Massachusetts Amherst. The MALLET website describes it as "a Java-based package for statistical natural language processing, document classification, clustering, topic modeling, information extraction, and other machine learning applications to text". See <http://mallet.cs.umass.edu/> for more.

⁵ Gephi is an open-source piece of software for the creation of both interactive and static network visualisations. The official website is <http://gephi.github.io/>.

novels. This part of the chapter also gives a brief overview of the process of topic modelling and how different methods can yield different results. It discusses the theory behind the process and looks at the different approaches that can be taken in interpreting the results of a topic model. As highlighted in the first half of this chapter, a common critique of a quantitative analysis of literary texts is that it obscures the particular and the specific. This chapter therefore describes a tool included in this edition which allows for the accessing of the terms and topics that form the topic model. Using this tool, the user can sort the text according to each of these terms, thereby allowing the user to see specifically where each of these terms is used in *Melmoth the Wanderer*. Finally, this chapter looks at how the “thematic view” of *Melmoth the Wanderer*, as discussed in chapter one, was achieved by topic modelling the text.

1.1 Higher and Lower Criticism

There have been previous attempts at connecting the fields of digital text analysis and digital textual criticism. Siemens, for example, has highlighted two models of literary studies that may help point to a new model of digital literary criticism. One is Tim William Machan’s general model for literary studies⁶ and the other is John Smith’s general model for literary computing⁷. Siemens suggests that these models are complementary in some useful ways and may serve as a starting point for the development of new model. Smith’s model divides computer applications for language and literary studies into two groups. One group consists of computer applications that manipulate a text in order to aid future research. In other words, using a computer to

⁶ See Machan, *Medieval Literature: Texts and Interpretation*

⁷ See Smith, “Computer Criticism”

create concordances, to collate a text, and in general to aid in the creation of critical texts for scholarly editions. Smith's second group consists of applications that actually analyse texts for things like style and theme (259). The first group of applications would perhaps be the responsibility and interest of textual critics while the second group would be the remit of literary critics. Machan's model divides literary studies in a similar way: a division into "Lower Criticism", which is textual and bibliographical work, and "Higher Criticism", which is interpretative. In the context of the digital scholarly edition, Siemens calls for a meeting of these higher and the lower forms of literary studies. It is through the digital scholarly edition, according to Siemens, that "one can most easily witness the influence of that which is chiefly textual and bibliographical in nature upon that which is more interpretative by nature", as well as the other way around (262). Siemens here is talking about what he calls "dynamic editions". Dynamic interaction, writes Siemens, is a process that is "enacting accepted lower critical practices upon a text" (261). Siemens believes that these lower critical practices when carried out by a computer and when paired with hypertext become an interpretive process. What Siemens means is that when a text that can concord and index itself is paired with a hypertextual textual apparatus, the resulting effect is one that aids a reader's attempt to interpret that text.

This critical edition attempts something different in conjoining the two modes of criticism. This is achieved by generating a topic model of a corpus of texts, which would fall into the interpretative or higher criticism mode of literary studies, and then making the results of that topic model available to the user while they read the critical text, which falls into the lower criticism mode of literary studies. When accessing the edition, the user can choose to sort the text according to the terms generated as part of

this topic model. Another way in which this edition pairs the lower and higher forms of criticism is through a “thematic view” of the text. In this process, the text of the novel is topic modelled and 25 themes or topics that run throughout the text are returned. Each paragraph is paired with a topic and this is represented in the encoding. The user can then choose to sort the text according to any of these topics. This, like Siemen’s describes, serves to aid the user’s interpretation of a text.

1.2 Distant Reading and Big Data

Topic modelling tools emerged in response to the problem of “big data”. Big data is an issue whereby the amount of data now available to us cannot be processed either by a human or by traditional computer processing techniques. In the humanities, one solution to the problem of big data has been the emergence of distant reading. Distant reading positions itself as an alternative investigatory and interpretative technique to the more traditional literary studies method of close reading. It takes a large corpus of literary texts as its focus and then carries out a computer-assisted analysis in order to reveal patterns and trends within that corpus. Moretti is one of the leading practitioners and theorists of distant reading. Moretti argues that such quantitative analysis is a more appropriate method for certain purposes as it can reveal the larger trends and patterns that shape literature (*Graphs* 4). For example, Moretti uses distant reading to study the effects of market forces on the evolution of literary form. Looking at a select few texts in order to say something about literary history is not always an appropriate method, in Moretti’s view, as it privileges a small selection of texts. He argues that the canon of novels that literary scholars usually work with is exceptionally small compared to the number of novels that have been published throughout history (*Graphs* 4). A canon of

two hundred 19th-century British novels, for example, would be considered very large but, as Moretti points out, it is still less the one per cent of the novels that were actually published during that century (*Graphs* 4). Close reading, writes Moretti, could never hope to make sense out of the mass of novels published in the nineteenth-century, and can only offer a view literary history that has been stitched together out of “separate bits of knowledge about individual cases” (*Graphs* 4). Moretti argues throughout his work that a literary field is not a sum of individual cases but is a collective system that must be grasped as a whole (*Graphs* 4). Jockers, who previously worked alongside Moretti as part of the Stanford Literary Lab, believes that the analysis of the broad system of literature can now be carried out following the rise of big data. Jockers argues that the big data revolution, which has had such a big influence on the sciences, has become a major catalyst for a digital revolution in the humanities (ch. 1). For Jockers, there are some questions that the old methods of literary studies simply cannot answer. But now, with access to vast swathes of literary data and the continued development of large corpora of literary texts, Jockers believes we can begin to ask questions that were once inconceivable. And, in order to answer these questions, Jockers argues that a new methodology and “a new way of thinking about our object of study” is necessary (ch. 1).

Moretti’s most famous and provocative book, *Graphs, Maps, Trees*, employs new methods to investigate global trends in literature and, similarly to digital scholarly editing having a theoretical basis in the editorial shift of the 1980s, Moretti’s experimentation in this book has a theoretical basis in his own past work. Moretti adopts these methods because they offer a potential solution to a problem in the way he approaches the study of World Literature. Moretti, for example, is interested in how

market forces effect the evolution of literary form and he argues that in order to examine World Literature in this way we must approach it not through close reading but through distant reading. Jockers points to Ian Watt's book *The Rise of the Novel* as one of the better examples of close reading as a method of arriving at a conclusion about literary history but even Watt's study, according to Jockers, is flawed (ch. 2). Watt argues that the elements that led to the rise of the novel could be detected in the works of a small selection of authors but, though Jockers believes his conclusions to be reasonable and appealing, there is no way of knowing if his elaboration from the specifics of these few novels to the state of the novel in general is correct. As Jockers asks, "what are we to do with the other three to five thousand works of fiction published in the eighteenth century?" (ch. 2). He claims that close reading is useful in many situations but in terms of studying the broader picture of literary history it is insufficient. Jockers goes further and says that the method of close reading is now both impractical as a means of evidence gathering in the digital library and inappropriate for the study of literary history now that big data analysis is possible (ch. 2). The nature of the evidence has changed, writes Jockers, and with it so must the ways in which we gather that evidence. That is, we must not focus on a select few novels and treat them as representative of all novels but instead our analysis must include a consideration of *all* novels. And what digital methods can do, through topic modelling for instance, is take vast amounts of data and discern underlying trends and patterns.

Digital methods are not entirely necessary carry out distant reading. Moretti and Jockers simply see digital methods as the most appropriate and efficient method to a quantitative analysis of literature. In "The Slaughterhouse of Literature", for example, Moretti aims to discover why some texts are canonised and more are forgotten. His

corpus is a selection of 19th-century detective stories: both popular ones, the works by Arthur Conan Doyle, and forgotten ones, Doyle's "rivals" (*Distant Reading* 71). Moretti's hypothesis is that the existence of a particular formal device in Doyle's work (this device is the use of clues) guarantees the success of the Sherlock Holmes novels, whereas the lack or misuse of this device in other works guarantees their failure. His method of discovering the status of this device in the texts in his corpus is to simply read the texts. He does this not by himself but with help from a group of graduate students. There were no digital methods employed but simply a minor instance of crowdsourcing. Of course, without access to Moretti's data his results cannot be analysed. Moretti does not even elaborate on his method. Were the instances of each formal device, each clue, marked-up in XML? Evidently not, but doing so would have made his experiment repeatable by others. This ability to make your data available for repeat experimentation by other scholars is one of the advantages of using digital methods to carry out distant reading, as opposed to the method employed by Moretti here. Digital critical editors are ideally placed to offer scholars stable and reliable texts for inclusion in digital corpora. And the advantage of having reliable textual data in a stable, readily available, and reusable form is that the experiments carried out using quantitative methods are repeatable and the data itself is open to critique. The work of digital critical editors should be seen as vital for the quantitative analysis of literature because it is only when significant amounts of texts are digitised and readily available that the results of quantitative analysis can have any claims to being a true representation of the broader literary field. Moretti, for example, looks forward to a future where every novel ever published has been digitised and made available for digital text analysis. In his essay, "The Novel: History and Theory", Moretti calls for a

theory of the novel based on the historical development of prose style. He says such a study would could only be imagined in a future where every novel ever published exists in a digital database. This database would then allow us to look for patterns across billions of sentences (*Distant Reading* 164).

In his quantitative analysis of 7,000 titles of novels published between 1740 and 1850, Moretti is forced to acknowledge a limit of his investigation. Moretti wants to show how market forces dictated formal qualities of novels. In particular, Moretti is interested in how the market influenced the average length of novel titles. But in his analysis, and he acknowledges this, he tends to focus on extremes. His graphs show us the fall of extremely long titles and the rise of very short ones. But, for the most part, titles in this period fell mostly in the middle of these two extremes. In talking about the decrease in the average length of novels, he points out that this decrease is small and slow. But it is a notable decrease all the same. Why the focus on extremes then? Moretti's reasoning was that literary historians "don't really know how to think about what is frequent and small and slow; that's what makes it so hard to study the literary field as a whole: we must learn to find meaning in small changes and slow processes - and it's difficult" (*Distant Reading* 192).

The solution to this is to "take those units of language that are so frequent we hardly notice them and show how powerfully they contribute to the construction of meaning" (*Distant Reading* 206-207). An example he gives is the use of the definite and indefinite articles in the titles of two particular genres of novel: the anti-jacobin novel and the new woman novel. These are two genres which Moretti believes have a lot in common and are suited to such a comparison. They are both ideological genres with a reliance on contemporary politics, even though they are separated by a century. In the

case of the anti-jacobin novel, Moretti found that the use of definite and indefinite articles in titles aligned with their use in his entire corpus: 36 percent began with the definite article and 3 percent with the indefinite. In the case of the new woman genre, however, he found that the definite article is used in 24 per cent of cases but the indefinite article is used in 30 percent of cases. Why do new woman novels deviate from the standard as defined by Moretti's corpus of 7,000 titles? Moretti cites an essay by Harald Weinrich who argues that texts are always pointing readers in either of two directions: forwards or backwards. Anti-jacobin novel titles are pointing readers backwards, to something they already know, hence *The Banished Man*, *The Parisian*, *The Democrat*. These novels "don't want to change received ideas, they want to use them" (Moretti, *Distant Reading* 206). New woman novel titles are pointing the reader forward, to something they have not encountered before, hence *A Girton Girl*, *A Hard Woman*, *A Daughter of Today*. Those novel titles are telling us that in the following pages we will be encountering these figures as if for the first time (*Distant Reading* 206).

1.3 Quantitative/Scientific v Qualitative/Humanistic?

In his book, *Reading Machines*, Ramsay writes about the meeting between scientific and interpretative methods in literary analysis and argues that digital text analysis needs a framework for operation which admits both these modes of inquiry. He argues that instead of adopting a purely scientific approach to text analysis, in that a hypothesis is proved or disproved through evidence gathered from an analysis of data, there should be an aspect of interpretation involved. Text analysis should not attempt to prove an interpretation of a text but should instead aim at intervening in discussions about a text.

Topic modelling itself, for example, relies on interpretation. The topics produced by the topic modelling program are simply collections of words that occur frequently throughout the corpus. It is up to the scholar to provide a label for these topics. This is a highly interpretative act and provides space for debate.

In the meeting between the humanities and the scientific method, the humanities is often framed as the side that must compromise its own methods in order to benefit from a more scientific analysis of literary data. But Ramsay argues that the scientific method, when meeting with the humanistic, must also compromise and admit the hermeneutical method of traditional literary studies. Text analysis must not set out to “prove” hypotheses but instead must offer potential readings of texts that intervene in ongoing discussions. Digital text analysis is used in this edition of *Melmoth the Wanderer*, for example, by supplying users with visualisations of topic models in order to offer important context in which to view the core text. These topic models do not claim to be definitive representations of Irish writing or gothic literature around the time *Melmoth the Wanderer* was written but instead are potential readings based on the parameters and data used. The interpretations of these models offered in the paratexts are also subjective and are up for debate. It is important in this regard that results from text analysis allow for critique from both scholars using similar methods *and* from scholars using traditional interpretative approaches. If a topic model is shown not to apply to a particular novel from this period as a result of a close reading carried out by another scholar then that must be acknowledged and the entire topic model itself must be questioned. Just because a topic models has been generated using more scientific methods that are involved in a close reading does not mean that the topic model has a greater claim to being correct than the close reading. Failure in distant reading and in

processes like topic modelling must be allowed. Ramsay, in fact, sees failure in textual analysis as an opportunity. He asks if such analysis would be better off eschewing success and instead asks “how much more gloriously or fruitfully it might fail. The goal, after all, is not to arrive at the truth, as science strives to do. In literary studies, as in the humanities more generally, the goal has always been to arrive at the question” (68).

Much of the criticism of quantitative analysis of literature suggest that its method is too rigorous and too scientific. Bode believes that such criticisms need to be engaged with if quantitative methods are to “make a productive contribution to literary history and humanities scholarship” (7). Bode suggests that two of the primary criticisms of quantitative analysis and of Moretti’s work is that it reduces the complexity and multiplicity of literature and language and that it makes false claims to authoritative and objective knowledge. Critics suggest that it is an inappropriate methodology that flattens out the field of literary history and loses the specific and particular details that close reading can uncover, while attempting to negate the results of close reading through the championing of distant reading’s more “scientific” methodology. For critics of quantitative approaches to literary studies, the rhetoric that accompanies these approaches is harmful for the humanities in general. As Bode argues, “numbers and statistics are imbued with significant power in modern society” and “much of this power comes from the rhetoric of objectivity and truth surrounding” quantitative analysis” (11). Such rhetoric is also employed in the use of computational methods, and this, for Bode, leads to a channelling of funds towards projects that use computational and quantitative methods. She believes that such a configuration of knowledge will have “major negative consequences for the humanities” (11).

But these two methods do not have to be an either/or choice. Bode points to the “methodological paradigm” of book history as a helpful example of how qualitative and quantitative methods can inform each other. In book history, instead of these two methods being divided and opposed, they are seen as two different perspectives with different uses and applications to the study of the literary field. Bode cites Joshi, who shows how close reading can reveal things that numbers and statistics cannot and vice versa, and Zwicker, who sees the loss of detail that comes with quantitative methods as justifiable when such methods contribute to questions that remain unanswerable using qualitative methods (14). Bode uses the example of book history to show that, rather than fostering an opposition between these two methods, the study of literature benefits when the advantages of both these methods are acknowledged and are used to inform each other. Neither qualitative nor quantitative methods can tell us everything about the literary field but, when taken together, their perspectives can afford us a better view of the field as a whole. Digital critical editions, as tools of close reading and as located in the digital space, are in a privileged position to become a potential meeting point between these two methods. Gabler imagines the digital scholarly edition as an interrelated web of discourses (“Theorizing” 44). The discourses or paratexts of this edition of *Melmoth the Wanderer* use topic modelling, for example, to offer users context in which the core text can be viewed. These include network visualisations of corpora of both Irish novels and gothic novels published during the late-eighteenth and early-nineteenth centuries. The data from these topic models is also made available to users. While browsing the text, users can choose to view this data and organise the text according to the terms found in the topic model. This allows users to move from the general results of the topic model to the specifics of *Melmoth the Wanderer*. In adding

this functionality to the edition, users can not only browse the edition in a unique way but they can also interrogate the topic model. By making the results of the topic model available in this way, users can bridge the gap between the qualitative and the quantitative and see how the topic model actually applies to the text of *Melmoth the Wanderer*. They do not have to accept the results of the model without question but can instead see where each of the terms returned by the model occurs in *Melmoth the Wanderer*. They can then discover for themselves if the patterns suggested by the model actually do exist in the novel or if there are in fact errors in the model.

1.4 Critical texts for digital corpora.

A further way that digital critical editions can contribute to digital text analysis is through the establishment of sustainable and reliable digitised texts for analysis. Jockers believes the digitisation of literary texts over the last few years has already led to a tipping point where there are now enough texts available in digital form for literary scholars to be able to ask “an entirely new set of questions about literature and the literary record” (ch. 1). Jockers blames the previous lack of such data for the typical aversion of humanists to computational approaches to the study of literature. Without access to big literary data, the questions that a computational approach could ask of literary texts was limited to word-frequency lists, concordances, and keyword-in-context (KWIC) lists. Such computational methods are useful but there is a limit to the insights they can us about literary texts. Jockers believes that there is an incoming revolution in the computer-assisted analysis of literature and this revolution is being brought about by digital libraries and the creation of large electronic text collections. For Jockers, the equivalent of “big data” in literary studies is “big libraries” (ch. 2). We

have arrived at a point where the proliferation of digital libraries and digital text collections allows us to ask big questions about literary history. While Jockers is confident about the texts available for digital analysis, McGann is not so sure and has concerns about the preservation of our cultural heritage. McGann argues that commercial entities, such as Google, are engaged in the preservation of our textual history for the “Advancement of Profit” rather than the “Advancement of Learning” (*Republic* 20-21) and that this obliges humanities scholars to both monitor and participate in this process of digitisation. Could critical editors intervene to help here?

One way that the creation of reliable and stable texts for digital critical editions can overlap with digital text analysis is through data. Critical editions make data available for analysis. And if enough textual scholars are making digital critical editions, and if they make their textual data re-usable, then this will contribute to the field of digital text analysis, it will improve the results gained through distant reading and the quantitative analysis of literary texts, and it will lead to greater understanding of the big picture of literary history. This is what digital critical editions can offer scholars interested in the computer-assisted analysis of texts. A scholar wishing to perform computer-assisted analysis on a text may require a text to be in a particular format. They may, depending on their tools, need a text marked-up in XML or they may simply need the text in plaintext, and a digital scholarly editor should make these formats available in their edition. For we know that literary interpretation is heavily reliant on the work of critical editors, the higher criticism building itself on the lower criticism. This is how literary studies operates. Close reading often depends on either an establishment of a stable text or at least an awareness of competing versions of a text and the debates

surrounding the history of a text that are supplied by textual scholars. But now the data for literary scholars interested in quantitative analysis of literary history is being supplied at best by libraries, worse by well-meaning but non-scholarly non-profit organisations (such as Project Gutenberg and the Internet Archive), and at worst by private profit-driven web behemoths (such as Google and Amazon). Where is the textual scholarship that goes into creating literary corpora?

The *Corpus of Irish Novels 1800-1830*, which was assembled as part of this thesis, would have greatly benefited from the existence of reliable and easily available texts of the novels. Instead, the majority of these texts come from Google Books. The process of obtaining simply a plain text version of the novels on Google Books is not straightforward. The texts can only be downloaded as PDFs and then the text must be ripped from these PDFs using third-party software. Novels often exist on Google Books across multiple volumes which are stored separately. These volumes must be collated by the user. Multiple editions of the same novel are also often stored on Google Books and so the user must be careful not to combine different volumes from different editions. There is also no guarantee that commercial libraries like Google Books will exist in to the future. Google has discontinued services in the past, even popular ones such as Google Reader. Google Books has also been the subject of a major copyright lawsuit that has affected its progress and possibly its future. A recent article in the *New Yorker* describes the project as being in “a kind of limbo” (“Whatever happened to Google Books?”). The article states that Google Books houses thirty million volumes but “most of it remains inaccessible” (“Whatever happened to Google Books?”). Commercial libraries should not be relied upon. Instead, the work of assembling digital libraries and corpora belongs to scholarly editors and textual critics.

Reliable and sustainable digital texts are just one of the ways in which digital scholarly editing can interact with digital text analysis. Caution is needed here, however. Digital scholarly editions should not simply be seen as acting in service to the field of digital text analysis thereby replicating previous divisions between higher and lower forms of criticism. Interaction implies a give and a take. Digital text analysis techniques can be used in the creation of digital scholarly editions in order to aid a user's interpretation and can contribute to the creation of usable digital scholarly editions. The second part of this chapter described how this was achieved with this edition of *Melmoth the Wanderer*.

2.1 The *Corpus of Irish Novels 1800-1830*

Maturin began writing *Melmoth the Wanderer* in 1818 and it was eventually published in 1820. This places the composition and publication of the novel between two important events in Irish history: the 1800 Act of Union between Great Britain and Ireland and the 1829 Roman Catholic Relief Act. Maturin is often placed alongside two other novelists in critical discussions of this period: Maria Edgeworth and Sydney Owenson (who later became Lady Morgan). These, however, were not the only Irish novelists during this period nor were they the only people creating fictions set in Ireland. Figure 4.1 shows the the number of Irish novels published in this period. For the first two decades of the nineteenth-century the number of novels published remains relatively static. It is not until the late 1820s that there is a rise in the number of Irish novels published. It also must be noted that the vast majority of these novels were first published in London. Irish authors in this period had a limited audience at home in Ireland and so wrote mainly for an English audience. What kind of things were these

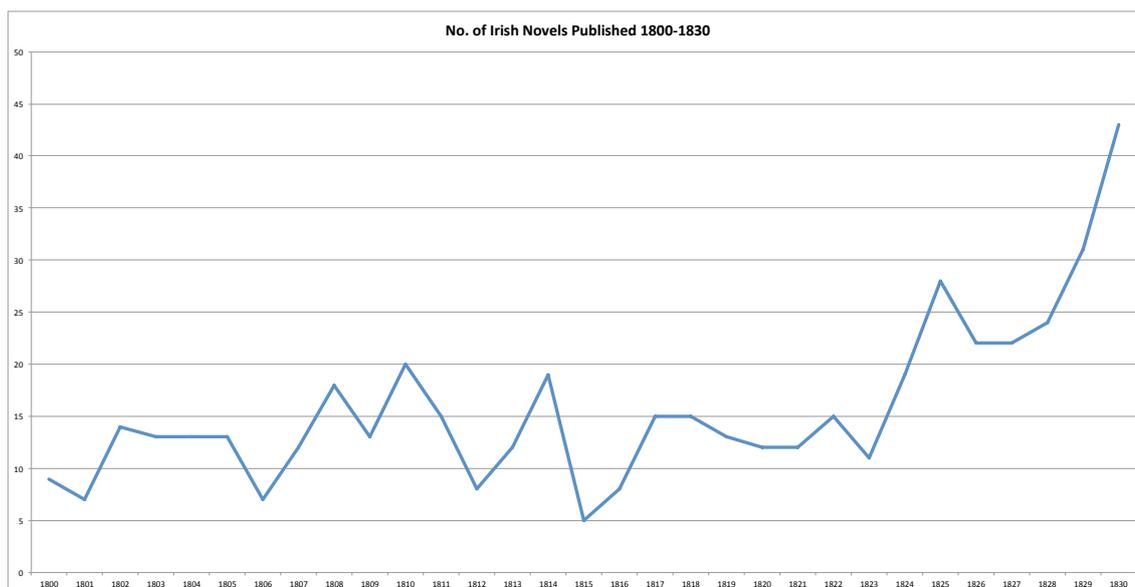


Figure 4.1. This graph shows the novels published by Irish authors and novels published by non-Irish authors but with Irish settings in the period 1800-1830. The data comes from the

Irish authors writing about? How were they writing? Are there any discernible trends or patterns? The *Corpus of Irish Novels 1800-1830* was constructed as part of this thesis. It currently contains sixty novels. Using this corpus, and the topic modelling tool, MALLET, we can construct a topic model of these texts in order to look at underlying trends and patterns in Irish novels from this period.

In terms of digital textual analysis of Irish fiction, the most notable work has been carried out by Matt Jockers, whose work on Irish novels forms the basis for his book on macroanalysis, which is discussed above.⁸ Another notable project is the *Nation, Genre, and Gender* project led by Gerardine Meaney at University College Dublin.⁹ One of the aims of this project is to establish a digital corpus of Irish novels published between 1800 and 1922. This corpus is not yet available, however.

Topic modelling works best on large corpora. Unfortunately, because of the lack of texts available online, it is not possible to compile a comprehensive corpus of novels

⁸ See chapter 7 of Jocker's book in particular for his work on Irish novels.

⁹ <http://www.ucd.ie/humanities/research/nationgenreandgender/>

published in this period. Megan R. Brett, in her introduction to topic modelling, argues that topic modelling works best on corpora where the number of documents is at least in the hundreds, if not a minimum of 1000 (“A Basic Introduction”). As Brett points out, it is up to the user to define what a document, so large documents can be broken up into smaller documents (“A Basic Introduction”). This approach of splitting up documents may not fit well with corpora consisting of novels that tend to vary in length. Splitting up these novels into segments of 1000 words, for example, would mean that the larger novels would come to dominate the corpus and would skew the results in their favour. In order to keep things equal, it is necessary to treat each novel as a whole document.

This corpus was assembled using Google Books. The checklist of Irish novels published between 1800 and 1829 compiled by Jacqueline Belanger was used as a guide (“Some Preliminary Remarks”). Each of these novels was searched for on Google Books and the ones available were added to the corpus. Google Books does not allow for the downloading of the plain text file of these books; instead, the ePub version was downloaded and the text was extracted using Calibre¹⁰. In the majority of cases, each volume needed to be downloaded separately and then combined following the extraction of the text. This process took some time to complete and highlights the necessity for scholarly editors to begin compiling reliable corpora for computer-assisted text analysis. The texts downloaded from Google are not perfect but they are the only way these texts can currently be accessed online. This also highlights the necessity of making corpora open-source and freely available online. The corpora that Jockers and

¹⁰ Calibre is a free and open-source application for the management of ebooks. < <http://calibre-ebook.com/> >

the Stanford Literary Lab works with, for example, consist of thousands of texts but these have not been made available for other scholars to utilise.¹¹

2.2 Topic Modelling

Meeks and Weingart describe topic modelling as “distant reading in the most pure sense” (“The Digital Humanities Contribution”). Topic modelling can often seem like magic: you take a corpus of texts and run a program like MALLET that consumes that corpus and spits out various lists of words. These lists of words must be interpreted by the user and then assigned to a particular topic. Topic modelling is a highly interpretative act and certainly not without its flaws as a method of distant reading. Meeks and Weingart call its results “seductive but obscure” as well as both easily interpreted and easily manipulated (“The Digital Humanities Contribution”). MALLET’s results will vary depending on the parameters used, such as number of topics selected and the optimise interval but it is rare for two outputs to be identical, even when the same parameters are included. Any particular topic model, especially when applied to literary texts, should not be seen as a definitive reading of a corpus but only one particular reading out of many possible readings of this corpus. The results too are open to interpretation and one person’s reading of the results may diverge from another person’s reading of the same results.

David M. Blei, one of the collaborators on the popular Latent Dirichlet Allocation (LDA) approach to topic modelling, describes topic modelling as providing “a suite of algorithms” that can be used to discover “hidden thematic structure in large

¹¹ See, for example, the Stanford Literary Lab’s Pamphlet number 4 by Heuser and Le-Khac titled “A Quantitative Literary History of 2,958 Nineteenth-Century British Novels: The Semantic Cohort Method” for details on just one of the corpora the lab uses in their work.

collections of texts” (“Topic Modeling and Digital Humanities”). The results of this process can then be used, says Blei, to “summarise, visualise, explore, and theorise about a corpus” (“Topic Modeling and Digital Humanities”). MALLET adopts the LDA approach to topic modelling. According to Blei, LDA is the simplest kind of topic model (“Topic Modeling and Digital Humanities”). It makes two assumptions about a text. The first is that every text or document in a corpus contains groups of terms that tend to occur together frequently, these are called ‘topics’. The second assumption is that each document in a corpus “exhibits the topics to a varying degree” (Blei, “Topic Modeling and Digital Humanities”). Put simply, topics are groups of words that occur together frequently in a text. They are called topics because they tend to relate to the same subject; it is up to the individual to determine what that subject is. Again, it is important to highlight the fact that topic modelling is simply an aid to the humanities scholar and it does not offer a definitive account of a collection of documents. Blei shares this view and very importantly points out that “the statistical models are meant to help interpret and understand texts” and that “it is still the scholar’s job to do the actual interpreting and understanding” (“Topic Modeling and Digital Humanities”).

There is no definitive way to topic model a corpus of texts. Results can vary depending on the number of topics you choose and the number of words you choose to exclude from the model. That is not to say that the results from one particular method can be “wrong” but just that different insights into a corpus can be reached depending on the method used. For this reason, two topic models were created of this corpus of sixty Irish novels using different methods. In both cases the corpus was processed by MALLET with number of topics set to 20 and the optimise interval set to 10. In the case of the first model, however, the number of stopwords excluded from the corpus was

kept deliberately low with simply the default stopwords supplied by MALLET excluded, as well as a small selection of words that were producing noise in the output. Out of a total of 20 topics generated from the corpus in this way, six were deemed relevant enough to be included as part of the model. In the second topic model, a comprehensive list of stopwords created specifically for this corpus was used. The same MALLET parameters were used: number of topics set to 20 and optimize interval set to ten. All of these topics were then included as part of a Gephi network visualisation. Another visualisation was generated with certain topics excluded based on a mixture of weight and coherence. Coherence in this refers to whether or not the terms that form the topic are interpretable as a whole.

2.3 The *Corpus of Irish Novels 1800-1830* Topic Model One

The six topics that form the first topic model are shown in Table 4.1. These six topics are lists of words that are frequently found to occur together throughout the corpus as a whole. The topic modelling program (MALLET in this case) will not indicate what these particular topics are, it will only indicate that these words are found most often together in these texts. The remaining fourteen topics were too lightly-weighted to warrant inclusion. Some consisted mostly of character names and were otherwise too specific to a single novel in the corpus.

In this first model, only the topics that had a weight above 0.5 were included. But this is not the only way to filter the results of a topic model. Topics that are incoherent or uninterpretable can also be excluded without compromising the model. Jockers argues that ambiguous topics can be ignored and focus instead placed on topics that are the most easily interpretable, without compromising the analysis in any way

Topics	Words	Weight
Topic 1	hand heart long eyes made young day thought time good man father heard head make left room half give	2.50815
Topic 2	man great time country men day part young party made place left means found state youth present death make	1.917
Topic 3	subject family attention house sir power friend character felt immediately received captain stranger person made till present situation friends	1.35305
Topic 4	mrs heart sir father feelings delwyn dear mother mind mr hope felt nature life happiness tender good affection castle	0.78172
Topic 5	moment heart night light felt life love till father power voice heard god eyes figure appeared castle wild feel	0.677
Topic 6	irish ireland country people prince human king nature english spirit mr state world soul church ancient called father lord	0.50855

Table 4.1. These are the six most heavily-weighted topics out of 20 generated from a corpus of 60 Irish novels from 1800-1830. This topic model was generated using MALLET. The weight column signifies the

(Ch. 8). He justifies this by arguing that literary scholars will often choose to focus on the more easily interpretable elements of texts in all facets of their work and will also often choose one specific element of a text, such as studying whaling or religion in *Moby Dick*. For Jockers, just because a scholar interprets *Moby Dick* in terms of religion does not mean that they must also account for it as a text about whaling (Ch. 8). In the case of this model, even though topic 1 is very hard to interpret because it is very general and applies to large amounts of the corpus, it was still included. This decision was taken because, by including this general topic, the model can then show which novels are outliers and do not conform to this general topic. For example, figure 4.2 is a

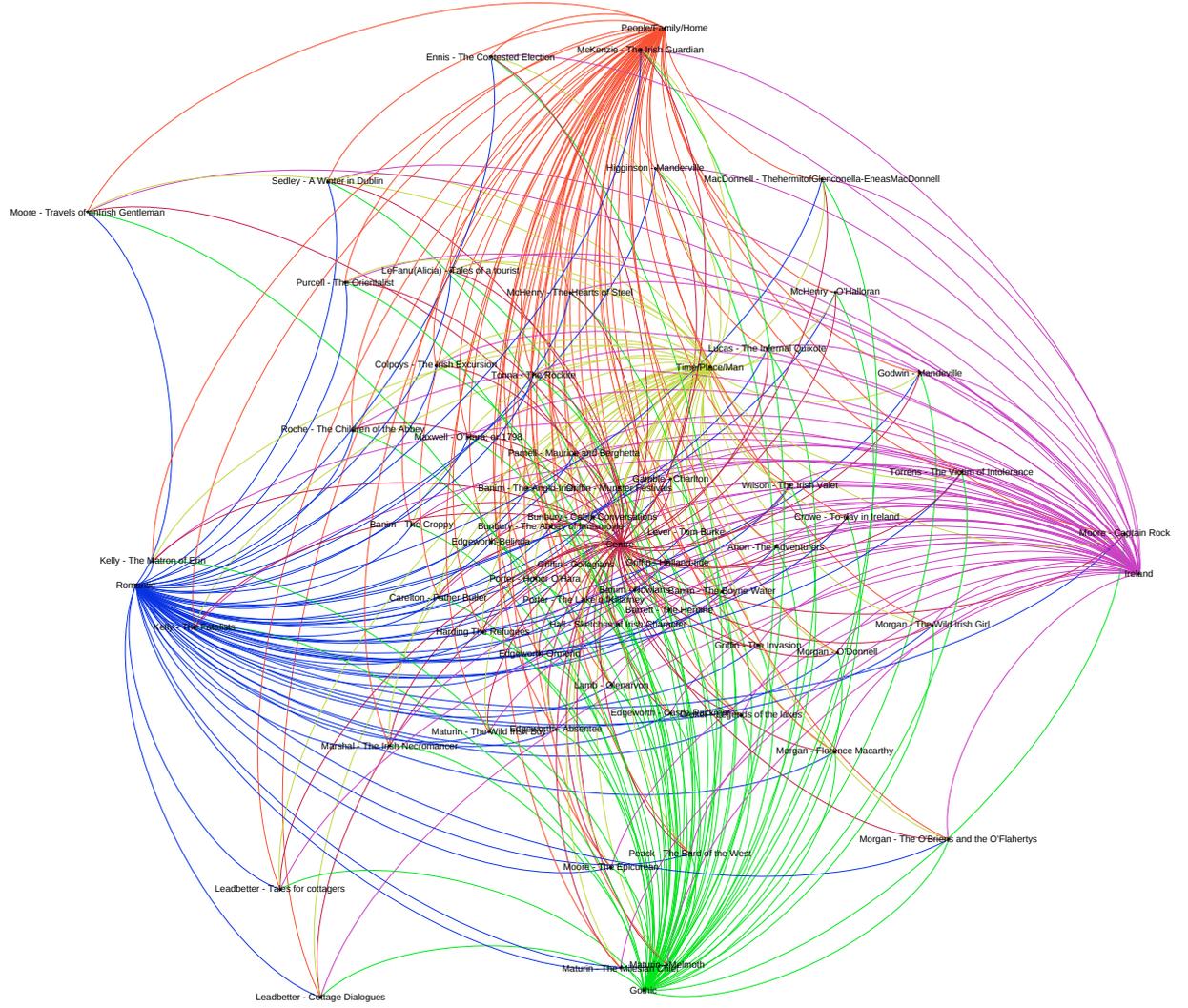


Figure 4.2. Gephi Visualisation of the first Topic Model using the 6 most

Gephi-generated network visualisation of this topic model¹² which shows that *Melmoth the Wanderer* (located at the bottom in the green cluster) is an outlier in this model and is dissimilar to the majority of the novels in this corpus.

Jockers argues that the inclusion or exclusion of certain topics from a particular set of results should not be reason to discount the model in its entirety (Ch. 8). Instead, debates about topic models should focus on the human assignment of labels to particular groups of topics, since this can be very subjective. The assignment of a single word or label to describe each of these topics is therefore a highly interpretative act and some topics are easier to assign labels to than others. Topic 6 in this first model, for example, is clearly related to Ireland because the two most important words in this topic are “irish” and “ireland”. *Melmoth the Wanderer* is far removed from this topic but it is in fact a novel preoccupied with Ireland. But the novel itself is still about Ireland and tends

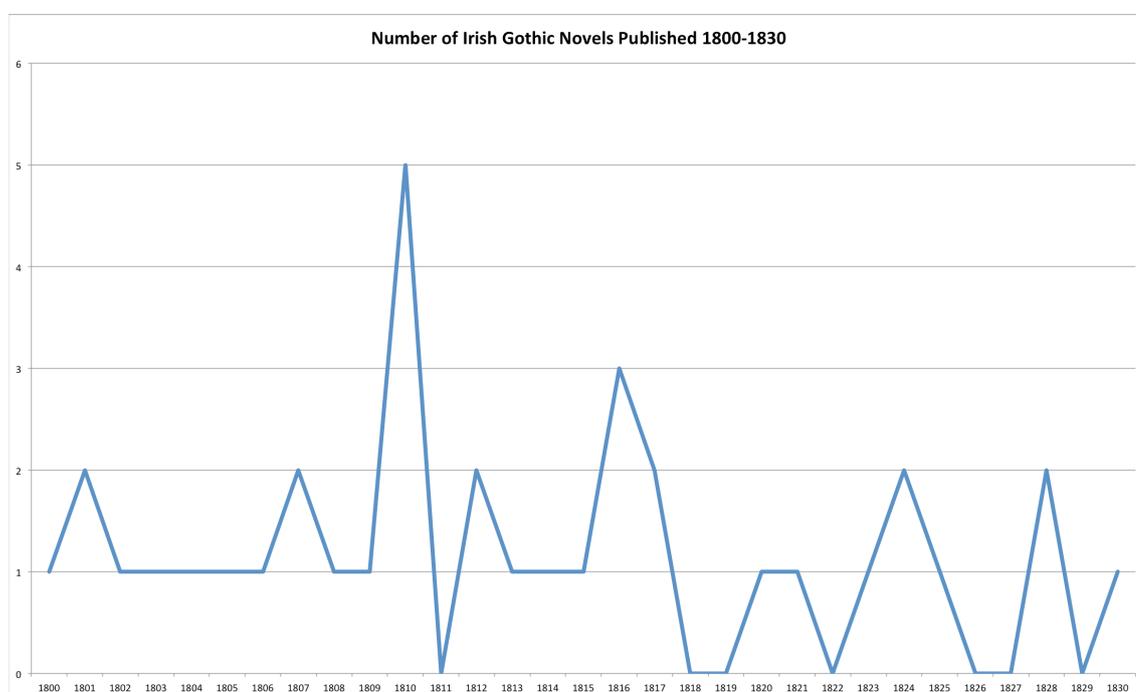


Figure 4.3. Irish novels with gothic elements from 1800-1830. Data comes from the Loeber *Guide to Irish Fiction*.

¹² For a higher quality version of this image see <http://app.melmoththewanderer.com/ireland-topic-model> or <http://pacific-harbor-2932.herokuapp.com/ireland-topic-model>

to use the coded language of the gothic to refer to Ireland indirectly. This is where this approach of distant reading a large corpus can be unhelpful, as it only allows us to see what these novels are explicitly about, and cannot tell us what they are implicitly representing through the language of code, metaphor, and allegory. See Appendix B for a discussion on how the topic of Ireland is represented in this topic model.

Topic 5 is also easy to define and is clearly related to the genre of the gothic (the purple cluster). This is the topic with which *Melmoth the Wanderer* is most strongly associated. This model indicates, however, that the gothic mode of writing in Ireland during this period was marginal. Figure 4.3 shows the number of Irish novels with gothic elements published from 1800-1830. By the time Maturin published *Melmoth the Wanderer* in 1820, the Irish gothic novel had dropped from its peak at the start of the preceding decade. This peak around 1810 and again around 1816 correlates with the

FIGURE 8: Market quotas of British hegemonic forms, 1760–1850

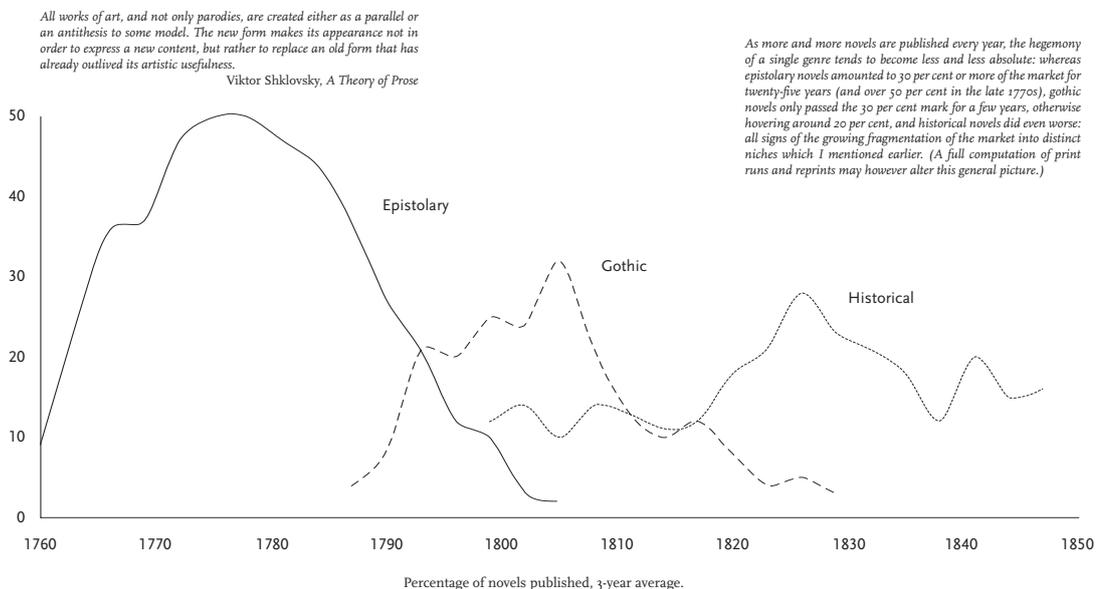


Figure 4.4. An excerpt from Moretti's *Graphs, Maps, Trees*.

publication of the gothic novel in Britain. Figure 4.4 is an excerpt from Moretti's

Graphs, Maps, Trees and shows a similar rise and fall of the gothic novel in Britain in the early nineteenth-century.

Helpfully, MALLET will also give a weight to each topic, indicating the relevance of that topic to the overall corpus. These two topics, gothic and Ireland, are the most easily definable probably because they have the lowest weights are the least applicable to the corpus as whole. That is, they are more specific and less general. This is likely because these topics pertain heavily to a small section of novels in the corpus and are applicable to the other novels to a much lesser degree. As already discussed, topic 1 is the most heavily-weighted topic and is therefore the most general and most applicable to the corpus as a whole. Because of this, it is difficult to assign the word list to a particular topic. It is more easily described as the “centre” of this corpus. Further, topic 2, which is the second most heavily-weighted topic, contains many similarities with topic 1. For example, the both contain the words “time”, “young”, “day”, and “man”. Topic 1 contains references to parts of the body: “hand”, “heart”, “eyes”, and “head”. Topic 3 contains multiple terms relating to people and to families and the home. Some of the terms that indicate this are “subject”, “family”, “house”, “friend”, “character”, “stranger”, “person” and “friends”. Topic 4 can be classed as “romantic”. This is evident through the words “heart”, “feeling”, “good”, “mind”, “hope”, “nature”, “life”, “tender”, “affection”, and “happiness”. Romanticism was prevalent in Irish fiction at this time and so this topic is not surprising.

2.4 The Corpus of Irish Novels 1800-1830 Topic Model Two

In the second topic model, the same MALLET parameters were used but this time a larger collection of stopwords was used. This stopwords list mostly contains character

Topic No.	Words	Weight	Label
Topic 1	heart dear cried room hand tears house father exclaimed eyes friend found replied returned thought immediately idea situation moment	0.74625	
Topic 2	good thing dear thought room man make young time world woman friend honour great made love poor day give	0.64612	
Topic 3	general emperor voice france cried day great court paris tone army life moment heart officer back soldier words guard	0.14191	Military / France
Topic 4	night moment light heard felt power fear human man amid dark castle stranger life words family mind feel thought	0.17522	Gothic
Topic 5	god church christ st faith doctrine religion holy christian body words catholic protestant fathers spirit find authority great father	0.10333	Religion
Topic 6	heart dear tender mother hope castle god felt husband mind major woman nature night affection poor doctor daughter painful	0.44121	
Topic 7	family son feelings father brother subject feel felt mother interest conduct man major present gentleman character honour affection pleasure	0.74615	Family
Topic 8	cried castle good young cousin heart stuart doctor bosom beautiful mother hand happy honour pounds daughter noble thousand sweet	1.82321	
Topic 9	man time hand long night head left day side young heard made door back word stood hands morning moment	0.07455	
Topic 10	good house father poor answered continued irish resumed voice flood woman god road young person people heart arm fact	0.12857	
Topic 11	heart father love life voice mind eyes world felt thought soul nature feeling thing heaven moment spirit air hand	1.42051	
Topic 12	time length found made attention immediately stranger appearance character place appeared considerable order circumstances effect distance degree instant formed	1.01686	Time / Distance
Topic 13	hermit lake mountain island people art great long river mountains valley chief good hills shore irish rock chieftain place	0.04353	R u r a l landscape
Topic 14	irish ireland country english people prince king catholic law ancient state government years church put history family land found	0.47027	Ireland
Topic 15	sister house young knew poor library chap person exclaimed court uncle count brother began thing ladies pretty creature lovely	0.04801	
Topic 16	replied youth man good god men steel fair house country hearts heart exclaimed gin worthy robin prisoner ha ken	0.10969	
Topic 17	irish castle st country army good poor brother great ireland soldiers sister sergeant english church party men military	0.13355	Military / Ireland
Topic 18	good poor man mother great house time woman honour father thing girl day make home people work made ould	0.22923	
Topic 19	time man great friend good mind life make made part present replied house day place returned manner means	1.65335	
Topic 20	irish great general st castle honor ireland back replied ould country party room eyes house returned commodore bog	0.07181	

Table 4.2. Data from Topic Model Two

and local place-names (names of countries and cities are not included in the stopwords lists as they tend to be thematically revealing, especially in the instances of “ireland” and “england”). For the first model, these names were eventually excluded “post-results” because they were, for the most part, part of the lightly-weighted topics. In this second model, they are excluded from the outset. The stopwords list also includes a number of other words that were causing a large amount of noise in the results, such as “mr”, “miss”, “mrs”, “lord”, “lady”, and “sir”. Topics were not excluded from the final model on the basis of weight, as in the first model, but instead all topics were included in the final visualisation.

With this second topic model, there are a much wider range of potentially interpretable topics than in the results from the first topic model. Table 4.2 shows the complete results for this topic model, with no exclusions. Many of the topics are similar to the first topic model. Topic 4 is related to the gothic and shares many similarities with the gothic topic from the first model: “moment”, “night”, “castle”, “light”, “power”. Similarly, there are again topics related to religion (Topic 5), family (Topic 7), and Ireland (Topic 14). Two new topics are related to the military: topic 3 is related to the military and France while topic 14 is related to the military and Ireland. Topic 12 can be interpreted as Time and Distance, while topic 13 is about rural landscapes. Many of the other topics are hard to interpret and many of them contain typical romantic words such as “heart”, “dear”, “good”, and “felt”. For this reason, these topics have been marked as uninterpretable.

Again, in this model, *Melmoth the Wanderer* is most heavily associated with topic 4, the gothic. The most lightly associated topic is 13, rural landscapes. In fact, this topic is not related to many of the novels at all and is often the most least associated

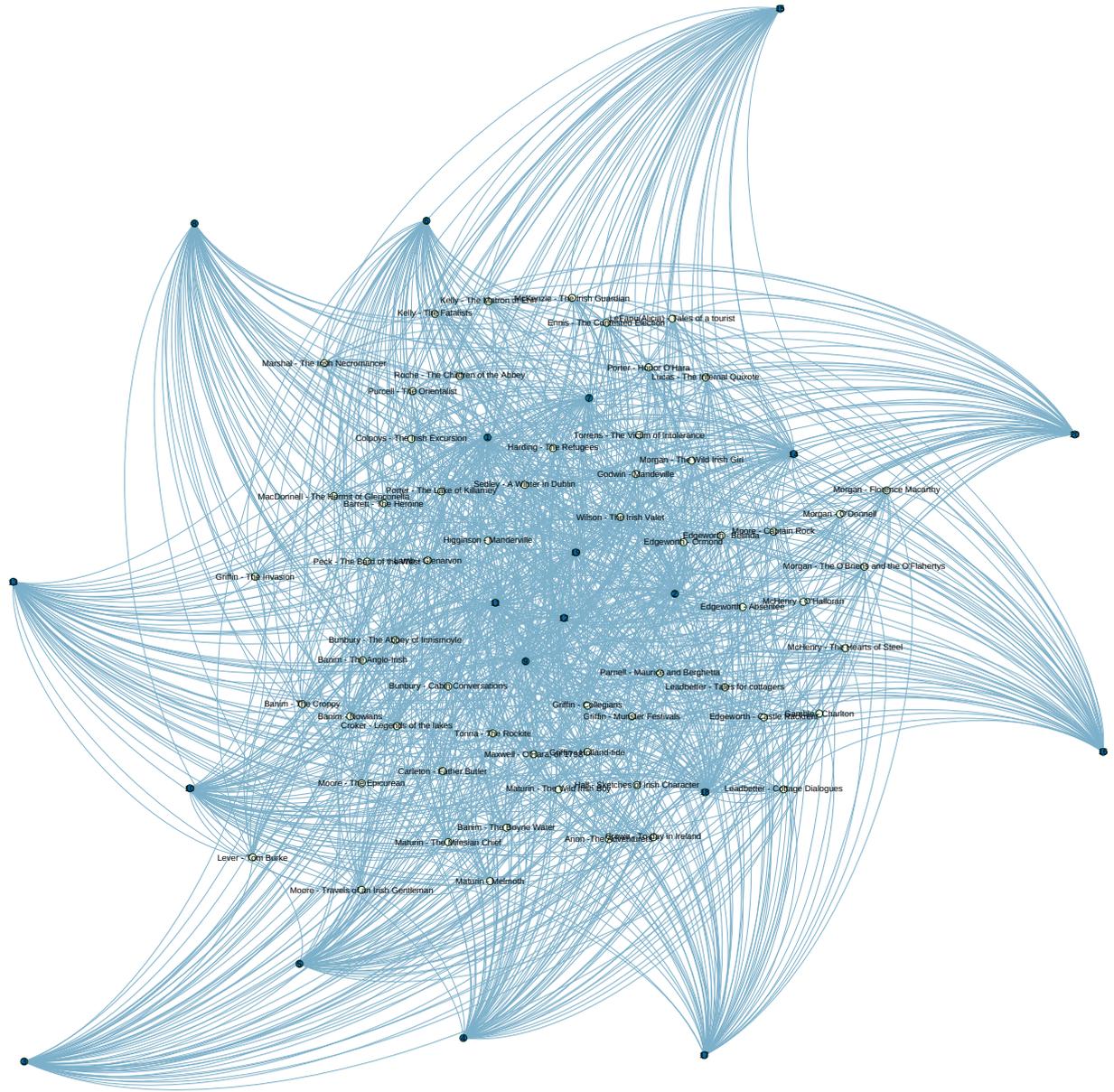


Figure 4.5. A network visualisation of all 20 topics from the second topic

topic for a novel. The two notable exceptions are Griffin's *The Invasion*, where it is the most heavily associated topic, and MacDonnell's *The Hermit of Glencolla* where it is the second-most heavily associated topic.

Looking at a network visualisation of this topic model in figure 4.5¹³, again constructed using Gephi, we can see that *Melmoth the Wanderer* once again gravitates to an outer orbit, although not as pronounced as in the first model. In the first visualisation above that uses just the six most heavily weighted topics, it is easier to see which novels are outliers in the model and which gravitate to the edges of the network. In this second visualisation, however, it is more difficult to see which novels are outliers. There is a definite centre to the network and it is from here that the rest of the novels spiral outwards. While many of the outliers in this model, such as Moore, Maturin, Kelly, Ennis and Marshal, are the same in this model as in the first, there are some differences. Most notably, Lever's *Tom Burke*, which is very close to the centre in the first model is a very obvious outlier in this second visualisation. Similarly, while Higginson's *Manderville* is at the centre of the second network visualisation, it gravitates to the outside in the first. Ultimately, the first network visualisation succeeds at showing how these novels relate to the most heavily weighted topics in the model while this second visualisation is more adept at showing how the novels relate to each other within the network. In the second visualisation, the novels do not organise themselves into clear groupings but instead their resting place in the network demonstrates their similarity, within the model, to the novels that are nearest to them in the network. For example, while Moore's *Travels of an Irish Gentlemen* is far removed from *Melmoth the*

¹³ For a higher quality version of this image see <http://app.melmoththewanderer.com/irish20-topic-model> or <http://pacific-harbor-2932.herokuapp.com/irish20-topic-model>

Wanderer in the first topic model, in this second topic model they are located quite close together in the lower left quadrant. What this means is that, in the first model, the two novels are located far apart because *Melmoth the Wanderer* is heavily associated with the gothic topic and *Travels of an Irish Gentlemen* is not and instead falls between two other topics: Romantic and Person/Family/Home. In this second topic model, however, there is a wider range of topics for the novels to be associated with. In particular, the presence of the topic of religion in this second model means that *Melmoth* and *Travels* are pulled closer together as they are both very much novels about religion. In the first model, the topic of religion was excluded because of its low weight when applied to the rest of the corpus.

What these two visualisations also show is that these models can be interpreted in different ways, depending on the approach we take and whether we chose to include topics based on weight or if we chose to include them all. If the second model were to be visualised in the same way as the first, by only including the most heavily-weighted topics, we would see a network much more similar to the first visualisation. While these two topic models and visualisations do not definitively demonstrate the state of the Irish novel in this period, they do show, for example, that “religion” and “ireland” were not explicit preoccupations of the majority of these novels, that there is a demonstrable romantic “core” to this corpus of novels (with the “gothic” as a more minor concern), and that the “family” was an important topic for many novels in this period. In the edition paratexts, these visualisations are primarily used to emphasise just how little Ireland is directly referenced within the text of *Melmoth the Wanderer* (see Appendix B). Topic model two is also used to emphasise who often Irish writers would mention “time” in their novels (see Appendix B).

2.5 The Tales Topic Model

Topic modelling was also used to determine the relationship between the separate tales

Topic	Words	Weight
Gothic	father moment god life man time made felt day power door family long till appeared mother hand superior voice	2.66373
Romantic	melmoth isidora heart stranger love elinor immalee light family amid john eyes priest spoke daughter night human feeling donna	2.45623

Table 4.3. Two-dimensional topic model of the tales in *Melmoth the Wanderer*,

in the novel. For this model, *Melmoth the Wanderer* was divided into its separate tales which were then run through MALLET. For this model, MALLET was only asked to return two topics. In this model, the tales fall into two groups of “primarily gothic” (fear) and “primarily romantic” (love). Table 4.3 shows the models data. Figure 4.6 shows a Gephi visualisation of the model; this visualisation shows the centrality of the “Tale of the Indians” to the novel. Within the summary of *Melmoth the Wanderer* provided in the edition paratexts, this topic model and its visualisation are used to show how each of the tales are organised within the two major modes of writing in the novel: the gothic and the romantic. This model also highlights how the “Tale of the Indians” falls in the middle of these two different modes. See Appendix B for a discussion on what this topic model can tell us about the novel’s tales.

2.6 The Gothic Topic Model

A topic model of a small selection of 13 gothic novels was also created. Again, MALLET was asked to return two topics. These two topics are quite general and similar

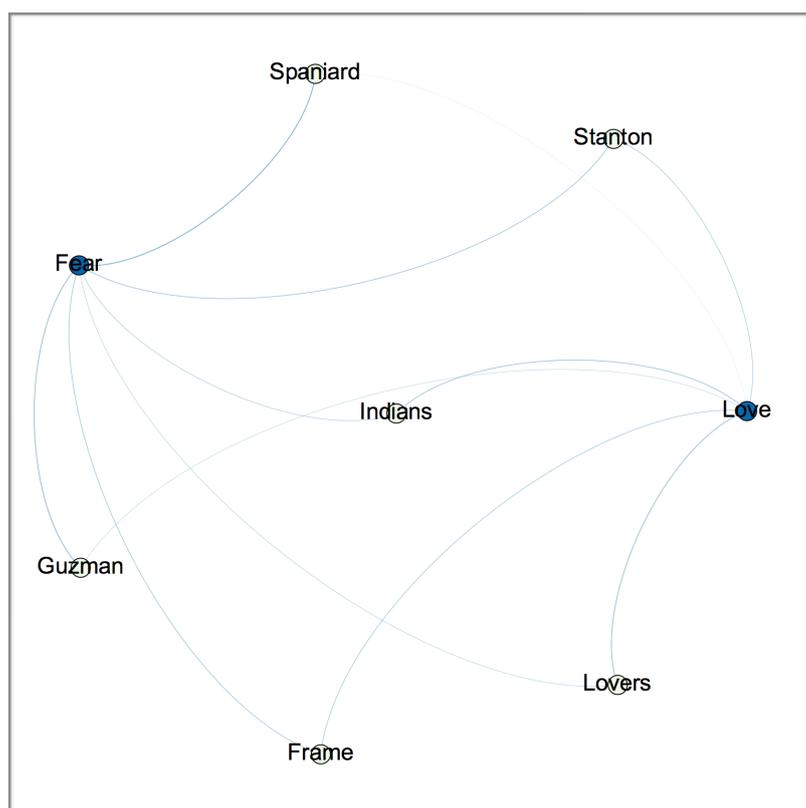


Figure 4.6. A Gephi-generated visualisation of a two-dimensional topic model of the tales in *Melmoth the Wanderer*

to one another. Gothic 1, however, appears to refer to a more “traditionally” gothic topic. This is because of the presence of words such as “heard” and “appeared”, which suggest characters being subjected to noises and apparitions. It is also because of the presence of the words “night” and “castle”, two traditionally gothic preoccupations. The second topic diverges from the first most notably because of the presence of the words “life”, “man”, and “god”, perhaps suggesting that the novels that most strongly associate with this topic are more preoccupied by issues of mortality and religion.¹⁴ Table 4.4 shows the model’s data. A Gephi-generated visualisation of this model is used in the edition paratexts (see Appendix B) to test the veracity of a proposed model of the gothic proposed by David Punter, who suggests that gothic novels fall into two

¹⁴ Appendix B elaborates further on this topic model.

Topic	Words	Weight
Gothic 1	heard time appeared heart door mind till father night long voice madame adeline replied passed castle length moment thought	2.32716
Gothic 2	man time life heart made day mind father felt moment found great lord god make thing hand thought world	2.20896

Table 4.4. A topic model of a corpus of gothic novels

categories: the traditional, Radcliffean gothic and the more psychological gothic. In Punter’s model, *Melmoth the Wanderer* contains elements from both categories and this topic model does bear this theory out with the novel falling into the middle of the network along with Lewis’ *The Monk* and Shelley’s *Frankenstein*.

2.7 Constructing the Thematic View using topic modelling data

A further way that topic modelling has been utilised in this edition of *Melmoth the Wanderer* is in the creation of the “thematic view” of the novel.¹⁵ Topic modelling in this case was not used to gain insight into the novel but was instead used in order to organise the paragraphs according to what topics they most strongly relate to. Users can then choose to organise the novel according to these topics. If a user was to select the topic “Crowds and Gatherings”, for example, it would return all the instances of that topic in the novel, such as Stanton attending a play, Monçada watching the procession moving through Madrid, or Isidora watching the religious fervour of the crowds on the

Topic	Words	Weight	No.
Religion	god holy church religion catholic christian country book speak saints mine faith continued spirit hear added call times miracle	0.1343	0

¹⁵ The “thematic view” of the novel can be accessed at app.melmoththewanderer.com/thematic or at <https://pacific-harbor-2932.herokuapp.com/thematic>

Topic	Words	Weight	No.
Escape	door escape passage light darkness liberation companion lamp confidence safety step walls danger trap courage terrors watching key liberty	0.08951	1
Old Melmoth	uncle honor room dying kitchen housekeeper bed ye women house closet portrait key years woman devil death party superstitious	0.06222	2
GENERAL 1	day life mind made found time house state means hope thing place began felt till make days kind gave	0.72551	3
Castle / Royalty	castle family king lady aunt widow language high court half royal preacher cousin sister son distinguished noble remembered puritan	0.11484	4
Travelling	mule horse rode road guide inn weary allowed hills rider traveller application scanty hoofs stony drop whip mud loose	0.0608	5
Island	isle island flowers indian goddess half rowed worshippers temple idol land streams shores vessels worship surrounded shore pagoda seeva	0.06186	6
Storm	amid storm rock fire nature darkness stood waves light danger ocean ruins burning wild spot sea thunder fragments eternal	0.19836	7
Romantic Expression	heart spoke eyes hour voice long smile expression made added form longer tears thought language speak silence features eye	0.57519	8
Family	father child mother brother director son parents god dear heaven family affection thing sacrifice embrace shame promise nature carriage	0.12487	9
GENERAL 2	moment man heard hands words felt hand uttered voice eyes stood time word exclaimed god answer despair life death	0.86953	10
Crowds and Gatherings	flames crowd procession st multitude priests spain military mass audience bells vast stones cross increased progress church scene neighbouring	0.0525	11
Love and Passion	heart power love human existence nature feeling felt feel world hope feelings life image earth pride passion victim religion	0.49323	12
Sleep, Nightmares, and Dreams	sleep night dreams awoke dream awake senses horrible horrors full slept day flames reason remember repose memory bear doubt	0.15228	13
Spanish Family and Marriage	family company wealthy montilla splendid spanish nuptials englishman domestics guests mother years arrived presented servants bridal bridegroom numerous carriage	0.10857	14
Night and Gothic	night door figure light sat till apartment appeared room evening long time approached round looked passed retired garden approach	0.67828	15
Youth and Beauty	beautiful world light stranger sun flowers amid moon bright imagination young loved pure trees eye isle heaven delicious things	0.22059	16

Topic	Words	Weight	No.
Family	father priest children daughter family mother wife husband son young spain meal woman wealth sister good parents wretched man	0.18267	17
Suffering	men hope sufferings fire misery miserable food hunger people dying demon imagine inflict possession laugh madness lie cruelty horrid	0.1016	18
Monastic Life	superior convent cell monk god hour community church bishop crime monastic vows bell altar walls crucifix brother order words	0.14273	19
Jewish	jew art behold solomon mine lord rebekah pen skeletons city thine hath fall flesh pray hast escaped save eat	0.05173	20
Inquisition	inquisition holy examination office prisoner extraordinary prison secret person torture cell questions escape jew terror inquisitors prisoners judges officials	0.11292	21
Feminine	love music young female delight exquisite lover fond taste vision brilliant graceful mantle folds feels tender dancing dress proud	0.09119	22
Telling Tales and Stories	stranger extraordinary told tale curiosity family spaniard narrative conversation knowledge listened person senhor subject circumstances singular history english spoke	0.23557	23
Reading and Writing	read lines written letter paper manuscript hand pages papers letters writing great page purpose contained contents copy reader powerful	0.09503	24

mainland. The purpose of this view is to allow users to make connections between the

Table 4.5 Topic model of the paragraphs of *Melmoth the Wanderer*

different parts of the text.

The thematic view was achieved, firstly, by splitting the text on the level of the paragraph.¹⁶ The collection of paragraphs was then run through MALLETT. In this case, MALLETT was set to return 25 topics. Each paragraph was then associated with its most prominent topic. Table 4.5 shows the results of this topic model. The first thing to notice with these results is that they are far more interpretable than the topic models of the

¹⁶ This was carried out using Python. A program was written that used regular expressions to split the text every time a tab symbol was encountered in the text. Each paragraph was then saved to an individual document.

corps of 60 novels. In fact, only the topics marked GENERAL 1 and GENERAL 2 were excluded from the final model because of their lack of specificity. If a paragraph was most strongly associated with a GENERAL topic then, for the purposes of the thematic view, the second most strongly associated topic was chosen. It must be acknowledged that some paragraphs do not neatly conform with the topics. Even if a particular paragraph is not strongly associated with any particular topic it still must be assigned a topic. For this reason, some of the themes contain paragraphs that do not strictly apply to that topic. The user still needs decide for themselves if a paragraph is applicable to its assigned topic or label.

2.8 Using the critical text to interrogate the topic models

The results of the topic models detailed above can also be accessed while using the edition. This tool was designed and included as a specific response to a critique of distant reading that posits that it obscures the particulars of a text in favour of broad generalisations.¹⁷ With this tool, the user can access the terms included in each of the topic models generated by MALLET and can return only the paragraphs where these terms occur. Because this tool uses an Angular filter, the view will be updated in real time without the need to navigate away from the text. This also means that the user can get immediate visual feedback on how often these terms occur in text. Just by glancing at the page, they will be able to ascertain whether these terms occur frequently (thereby returning large amounts of the text of the novel) or infrequently (thereby returning little or no text at all). This simple tool is just the beginning of a necessary process in digital

¹⁷ The tool can be accessed by clicking the “Topic Model” button while viewing the text.

critical editions which is the bringing the results of quantitative analysis into critical editions, which are the foundations of qualitative analysis, thereby enriching both approaches to the study of literature.

An increased interaction with the field of digital text analysis will help the digital critical edition carve out a new space for itself online. Firstly, this can be done simply through the establishment of stable and reliable digitised texts for analysis. Secondly, digital critical editions can, through the establishment of distant reading as one of the discourses of a digital critical edition, become a meeting point for qualitative and quantitative methods for the benefit of literary studies and the humanities in general. This can be done through establishing, as a discourse that surrounds the edition, a topic model of a corpus of texts contemporary to the edition text. Topic modelling is just one of the tools of distant reading but it is one of its most accessible. MALLET has lowered the threshold for entry to this practice and allows for the quick and easy creation of topic models. In topic modelling, the process may no longer be daunting but the difficulty in accessing data and the issues arising from the interpretation of the results of topic modelling mean that, overall, the practice of topic modelling is not as straightforward as tools like MALLET make it seem. In nineteenth-century Irish studies, there is currently a lack of resources in terms of digital versions of novels that can be relied upon for digital textual analysis. The texts in this particular corpus were put together by extracting the text from Google eBooks of the novels but this process was time-consuming and awkward. The texts are also far from perfect and contain errors due to the OCR process they underwent. This situation will only change when attention is paid to creating reliable and scholarly digital versions of these texts. More

reliable corpora will ensure more reliable results. Topic modelling does not offer definitive results and, as this chapter has shown, different approaches in method can yield different results. Further, those results themselves, no matter the method used to generate them, are open to interpretation and their meaning can be contested. Visualising the results can yield further insights into these texts and how they relate not only to the topics but to the other novels in the corpus. Including such visualisations in digital critical editions of texts from the corpus can offer users a context in which to view that edition and, more than this, including the data in the edition itself and allowing the user to manipulate the text based on that data can offer users a view of how the generalities of the topic model relate to the specifics of one of the texts.

Conclusion

There are three major parts or strands to this thesis. Firstly, there is the edition of *Melmoth the Wanderer*, its response to critical editing debates and theories, how it was constructed, and how it was encoded. Secondly, there are the traditional paratexts that offer readers important literary and historical context for the novel. Finally, there is the use of computer-assisted quantitative analysis as a way of offering a unique kind of context for readers of the edition. Each strand represents a potential mode of operation for the digital critical edition: creating new textual experiences, surrounding the text with traditional paratextual materials, and surrounding the text with innovative and experimental paratextual materials. These three strands are tied together by the particular textual example and case study of *Melmoth the Wanderer*. The first strand, the edition, has shown how the text of a digital critical edition can be conceived of and designed in a new and innovative way, particular when the editor is confronted with problems such as the ones presented by the text of *Melmoth the Wanderer*. The second strand, the traditional paratextual materials, shows how the digital critical edition can remain rooted in the long traditions of print critical editing, even when it is innovating it terms of the text. The third strand, the experimental paratextual materials, brings in a new potential area of interest for digital critical editions and a new way of relating a text's context to a reader through quantitative textual analysis. These three strands each stand on their own but need to be brought together in order for the new kind of edition promised by this thesis to be arrived at and to be successful. In some ways, this has been achieved but, in other ways, the strands remain too separate.

The first strand, the edition, lies at the core of the thesis. *Melmoth the Wanderer*, a novel with a complicated period of initial composition and publication, has been

adopted as a case study for a new kind of digital critical edition. This new kind of digital critical edition differs from traditional print critical editions in that it does not establish a new text from documentary witnesses but instead experiments with the original text itself in order to arrive at a new kind of multi-textual view of what is a complicated and, at times, awkward text. Chapter one discussed the particular peculiarities of *Melmoth the Wanderer* that make it a prime candidate for this new kind of digital scholarly edition. These specific issues arise from its complex period of initial composition and publication which saw the original text of *Melmoth the Wanderer* being assembled and structured by Constable and his staff as Maturin dispatched manuscript in a haphazard and disorderly manner. We have no way of knowing if the text eventually published bears the structure intended by Maturin as all original manuscripts have been lost. This edition of *Melmoth the Wanderer* intervenes at this point and offers the reader multiple views of the text, thereby drawing attention to the structure of the text and allowing the reader to ask the necessary questions regarding that structure.

This multi-view edition is made possible through the power of DOM manipulations. By using DOM manipulations, a text has been created that can be manipulated and rearranged in real time depending on the user's goal and preference. *Melmoth the Wanderer* is a long, fractured, and confusing text and this way of designing an edition offers great benefits to the user when they are studying the text. This edition aids users in achieving their goals because they can organise the text in whatever way suits them: by tale, by chapter, by search term, and by theme. This is a reimagining of the critical edition that could not easily be achieved in print. This edition breaks through the competing structures of the novels and privileges neither the chapter-based structure or the tale-based structure. This was achieved through encoding the text of *Melmoth the*

Wanderer as a database of paragraphs that can then be sorted and manipulated depending on how a user wishes to view and access the text. By modelling the text in this way, a number of different structures of paragraphs can be generated. Not only does this edition offer users the two structures detailed in chapter one (chapter and tale), it also offers users the ability to structure the text according to a search term of their own choice and according to theme or topic. This was achievable due to the text being encoded on the level of the paragraph, as described in chapter three.¹

Because of the way the text was encoded, there are other views which feasibly could be added to this edition. For example, it would be possible to create another view based on secondary criticism of the text. This could be achieved by researching the secondary literature on *Melmoth the Wanderer* and making a note of which passages from the novel they quote. Each paragraph of the novel could then be encoded according to which articles refer to that paragraph and how many times it is referred to overall in the surrounding discourse on the novel. The user could then be offered a view whereby paragraphs are ranked according to how many times they are mentioned and quoted by critics. This would then show which passages have received the most critical attention and which ones have been neglected. This edition could be improved further in the area of editorial notes and annotation. Annotation and commentary are two of what Gabler calls the “discourses” of a text. A fully annotated text offers potential for another kind of view. This “notes view” would allow the user to browse the edition’s notes, arranged thematically, with each note connected to the paragraph in the text to which it

¹ By encoding a text as a collection of paragraphs, an edition can be reimagined as an archive with each paragraph becoming an item in the overall collection. Each paragraph can then be associated with different attributes thus allowing the text to be dynamically transformed and restructured according to these attributes i.e. theme, search term, chapter, or other structure that is logical in terms of that particular text.

refers. This would be an opportunity for the user to learn about the text from a different perspective, by allowing them to access contextual information about the text first and then navigating to various examples of where that context comes into play in the text.

There are areas in which the performance of the app could be improved. Filtering and sorting large amounts of data using Angular can result in slow performance. This is the case for using the sort box in the Melmoth app. In particular, using the sort box on the complete view means that the app is attempting to sort through every paragraph in the novel and this results in a notable increase in the amount of time it takes to update the DOM. There is a similar decrease in performance when the user attempts to delete their search term from the sort box. The complete view of the text also suffers a decrease in performance in general compared to the other views due to the amount of data being loaded. The app also slows down in this view when the user first begins to scroll through the text; this is due to the real-time updating of the sidebar as the user scrolls through the chapters.

This edition is designed as a responsive web application. Digital critical editions will benefit by being designed in such a way because it ensures that they will work on the widest variety of screens and devices possible. Editors cannot predict how users are going to access their editions and so they need to account for every potential device and screen that may be used to view and use the edition. Such functionality can be achieved by design frameworks such as Twitter Bootstrap. These frameworks are now part of the toolset of the modern digital critical editor.²

² By using existing frameworks, editors can build upon the work of others and can become responsible for the entire creation process of digital scholarly editions: from analysis and design, to creation, and on to publication.

This strand of the thesis also encompasses issues regarding data and encoding. The text of this edition was required to be encoded in JSON due to the technologies being used. But, as was shown, JSON is not entirely suitable for the encoding of literary texts because of its difficulty in dealing with mixed content effectively. JSON, however, is increasingly becoming the data format of choice for web designers and developers. The de-facto encoding standard in the humanities, however, remains TEI-compliant XML. This thesis has suggested that the TEI community look to begin offering guidance to those scholars who need to create JSON encodings of humanities and literary data.

Not only should digital critical editions experiment and innovate in this way, however, they should also offer the reader thresholds across which they can enter the edition and contexts in which they can read the text. For this reason, this edition of *Melmoth the Wanderer* blends the experimental with the traditional by accompanying the core texts, or views, of the edition with an introduction to the novel that covers its historical and literary context. This is the second strand of the thesis. These two modes of the edition are not incongruous but instead work together to create a rounded and thorough entry point into the text for readers. This edition gives readers the necessary traditional contextual material for understanding the novel and its place in history but it also confronts the reader with the reality of the text's genesis by drawing attention to the sum of its parts through the multi-view edition.

However, these two strands are currently too separated. The text and the context reside in two different parts of the edition and are unconnected. The user is still expected to read these traditional paratexts in the traditional way: linearly from start to finish. The paratexts do not rely on the text and the text does not rely on the paratexts.

This is not ideal as it breaks the edition into two distinct parts that the user must navigate separately. This could be improved upon by linking the paratext to the text and vice versa. In this way, the user could be browsing or reading the text and be notified on screen when a paragraph they are looking at is associated with a paragraph in the paratexts. The user could then immediately view the associated paragraph from the paratexts without navigating away from the text. Similarly, while reading the paratexts the user would be offered specific examples from the text that relate to the particular section of the paratext that they are reading. While reading about the novel and the topic of Ireland, for example, the user could choose to view the paragraphs in the text in which Maturin directly and indirectly references Ireland. This could be done without obligating the user to navigate away from the paratexts and by showing the relevant passages alongside the paratexts, should they choose to view them.

This edition of *Melmoth the Wanderer* gives readers a way to increase their understanding of context and text by supplementing the traditional paratexts with something more experimental. This is the third strand of the thesis. This strand argues that another potential way forward for the digital critical edition is through increased interaction with the field of digital text analysis. This has been achieved by this edition through the use of topic modelling both in the establishment of a thematic view of the edition and in order to create visualisations to use as part of the paratexts of the edition, and also by using the text of the edition itself to interrogate the results of these topic models thereby bridging the gap between the qualitative and quantitative analyses of literature.

By creating a corpus of novels contemporary to *Melmoth the Wanderer*, it was feasible to generate a number of topic models and visualisations of those models which

were then included in the edition's paratexts. These visualisations were utilised in the paratexts of the edition and they offer users a unique way of contextualising *Melmoth the Wanderer* within a corpus of contemporary novels. Again, however, this strand remains too separated from the traditional paratexts strand. Currently they exist as static images within the flow of the text of the introduction and other paratexts and could be improved upon by being designed as interactive visualisations. This would mean they would make more of an impact while a reader makes their way through the paratexts and would allow for improved dissemination of the data that the images represent. Again, this could be achieved without obligating the user to navigate away from the paratexts. An interactive visualisation where the user has the ability to manipulate the data would provide the opportunity to both discover new trends in the data and to investigate fully how the data supports what is being said in the traditional paratexts. This could be achieved by using a data visualisation library such as d3js, which would add interactivity to the graphs and would add to their usability. Issues in combining AngularJS with d3js, however, prevented a full establishment of interactive and dynamic visualisations alongside the edition text and the paratexts.³

The experimental paratexts strand combines with the edition strand by allowing the user to investigate the data generated through textual analysis while they are browsing the text. This is made possible by the way the edition has been designed and created. Firstly, it is made possible by the fact that the text was encoded as a database of paragraphs, as described above, and, secondly, it was made possible by the filtering and sorting functionality that comes with Angular. The topics generated through topic

³ d3js is a Javascript library for visualising data. Due to the way Angular is designed, it cannot be used in conjunction with other libraries unless those libraries have been modified to work with Angular. Components from Twitter Bootstrap, for example, has been modified to work with Angular in the form of UI Bootstrap library for Angular.

modelling are made available to the user as they browse the text and the user can choose to sort the text according to each of the topics. This serves two purposes. It allows the user to interrogate the topic models in order to see how the topic modelling software arrived at these topics in terms of *Melmoth the Wanderer*. This helps the user to make a judgment about whether or not the particular topic model is accurate and makes the results of the process of large textual analysis more accountable, instead of having to take those results at face value. The second purpose it serves is to offer the user another view of the text on top of the ones described above. By sorting the text according to these terms, the user is offered another structure and another way of seeing *Melmoth the Wanderer*.

While these three strands are too separated in some ways, the edition remains a step forward for the digital critical edition. It displays what is possible when digital critical editors exploit the potential of the digital medium in order to create editions that respond to particular textual case studies, such as *Melmoth the Wanderer*. It also shows what is possible when digital critical editions are brought into contact with other burgeoning digital fields, such as digital quantitative analysis. Finally, it shows that digital critical editions can innovate in this way and yet remain rooted in the traditions in which they were founded, by surrounding the digital text with traditional paratextual materials. Digital critical editions will continue to be rare if they do not experiment in the way that that this edition of *Melmoth the Wanderer* has. Digital critical editions need to leverage the power of the medium for which they are being created. If they are simply going to be created as surrogates of print editions then they may fail to find an audience and they will certainly be missing an opportunity.

The digital critical edition needs to experiment and innovate in this way, even if such experiments and innovations are not entirely successful, because the digital critical edition appears to be failing in the digital medium. Robinson, Fischer, and Andrews have all written about this problem and offered their own arguments to account for its apparent struggle in the digital medium. Robinson and Fischer in particular tie the decline of the digital critical edition to the rise of the digital documentary edition. This thesis has argued that the digital critical edition suffers from not having the same pre-digital theoretical foundations as digital documentary editions. These foundations are found in the work of McGann and McKenzie. The digital critical edition does not offer a solution for problems with equivalent print editions in the same way that the digital documentary edition does. Further, digital documentary editions are tied to the narrative of the rise of the digital humanities and have been called by Kirschenbaum the “silver bullet” of early humanities computing. Digital critical editions fail because they have not sufficiently articulated how they offer something different than can be achieved by a print critical edition beyond being conceived as a collection of texts and paratexts arranged hypertextually. This thesis and edition has offered some potential ways of changing this.

This thesis and its accompanying edition point to a potential future for the digital critical edition. In this future, digital critical editions are not conceived of in the same way as print critical editions. There is little need to create digital critical editions as print surrogates. Print critical editions will continue to exist because they have evolved over the centuries into excellent and usable tools for studying and establishing texts. The primary purpose of print critical editions will remain the establishment of stable texts for the purposes of scholarly research. Digital critical editions should not aim to

replicate this goal. Instead, digital critical editions should be established by the editor as usable editions that allow users to easily access the constituent parts of a text. In this kind of edition, instead of a single stable text there are multiple views of the same text. The text in every view is the same, it is just organised in different ways.

The goal of the scholarly edition in general is simple: to transfer knowledge about a given text to a user and to facilitate the creation of new knowledge about a given text, by a user. As Robinson succinctly put it: “We can offer what we already know; and we can offer means to find out what we do not know” (“Electronic Editions for Everyone” 154). This edition offers users what we already know about *Melmoth the Wanderer* in the form of the paratexts that surround the edition, both the traditional and the experimental. This edition also offers users the means to find out what we don’t know about a text and it makes this work as easy and efficient as possible through its multiple views of *Melmoth the Wanderer*

Appendix A

Edition Paratexts:

A biography of Charles R. Maturin, a summary of *Melmoth the Wanderer*, and a critical introduction to *Melmoth the Wanderer*

1. Introduction

Oscar Wilde, as he wandered Europe following his release from prison in 1897, adopted the pseudonym “Sebastian Melmoth”. The first part of this name comes from Saint Sebastian, a Christian martyr killed by the Romans. The second part of Wilde’s pseudonym, however, comes from the title character of *Melmoth the Wanderer*, an Anglo-Irish gothic novel published in 1820 and authored by Wilde’s great-uncle, Charles Robert Maturin. Maturin’s novel influenced writers such as Honoré de Balzac (1799-1850), Charles Baudelaire (1821-67), James Clarence Mangan (1803-49), Nathaniel Hawthorne (1804-64), Edgar Allen Poe (1809-49), Joseph Sheridan Le Fanu (1814-73), and Christina Rossetti (1830-94). H.P. Lovecraft, one of the most significant horror writers of the twentieth century, credits *Melmoth the Wanderer* as having taken “an enormous stride in the evolution of the horror-tale” that contains a “pulse of power undiscoverable in any previous work of this kind” and “an understanding of the profoundest sources of actual cosmic fear” (Lovecraft 32).

Melmoth the Wanderer is a novel about an Irishman from the seventeenth-century who sells his soul to the devil. In return he is given forbidden knowledge, an unnaturally long life, and the ability to appear anywhere on Earth. At the end of 150 years of life, however, Melmoth will be consigned to hell. But there is a way out: Melmoth will be spared this hellish fate if, within that span of time, he can find just a

single person willing to give up their soul to him. The novel is structured as multiple stories within stories, like a Russian nesting doll, with each tale depicting a character who is tempted by Melmoth's offer. It is often cited as the last of the first-wave gothic novels (which lasted from roughly 1780 to 1820 and was comprised of works from Horace Walpole, Ann Radcliffe, Matthew Lewis, and Mary Shelley, among others). It was written by an eccentric Anglo-Irish Protestant cleric named Charles R. Maturin, who began composing the novel in 1818. It was eventually published in 1820. The novel was published between two important events in Irish history: the 1800 Act of Union between Great Britain and Ireland and the 1829 Roman Catholic Relief Act. *Melmoth* is not explicitly about Ireland or Irish issues but it remains an intensely Irish novel. It is a novel about the dangers of Catholicism, as perceived by Maturin, who was a member of the minority Anglo-Irish Protestant ruling class at a time when the majority Catholic population in Ireland were becoming increasingly politicised. The early decades of the nineteenth century, during which Maturin was active as an author, were shaped by the political upheavals of the 1790s and the subsequent union of the kingdoms of Great Britain and Ireland. But these events themselves were shaped by events in the seventeenth-century: the 1641 rebellion, the Cromwellian Conquest of Ireland and subsequent settlement, and the Glorious Revolution. *Melmoth the Wanderer* is in part a novel about Irish society's relationship with the past and about how that past continues to haunt the present. It is also a novel shaped by the complexion of Irish society: a society in which the minority ruled and the majority were excluded from power. It is difficult perhaps to represent such a divided society and, for Maturin, in *Melmoth the Wanderer*, he could not represent that society at all, instead choosing to frame his novel with in an Irish setting before moving the action to England, to Spain,

and to an island in the Indian Ocean. The novel arguably is nevertheless about Ireland and about the influence of the Irish past on the Irish present. The novel was composed in a divided society and carries traces of this genesis. For example, it is notable that its view of history suggests that historical wrongs always live on and cannot be forgiven.

But the novel also carries traces of Maturin's Calvinist upbringing. Calvinism is a religious doctrine that espouses, among other things, the importance for an individual soul of having a personal, unmediated relationship with God. For Maturin, religions which placed their institutions and their clergy in between their followers and God were oppressive. Followers of such religions, in his view, were denied a true relationship with God. In Ireland, he saw the Catholic Church as such an oppressor and, in his sermons, he called for the Catholic population of Ireland to free themselves from that church. In these sermons, such as his *Five Sermons on the Errors of the Roman Catholic Church*, his appeals to Catholics were relatively calm and composed. In *Melmoth the Wanderer*, however, his employment of gothic tropes contributed to a view of the Catholic Church as bloodthirsty, sadistic, and evil and its followers as superstitious and easily manipulated. But Maturin's attacks on the Catholic religion could so often be extended to all religions that Maturin's views were considered blasphemous by contemporary reviewers. In a famous passage during the story of Immalee, the character of the Wanderer describes to her the evils of organised religion, forcing Maturin himself to interrupt and acknowledge the blasphemy of such remarks. He claims in a footnote that he himself does not hold such beliefs but that he intentionally placed the words in the mouth of an "enemy of mankind" (Ch. 17).

2. Biography of Charles R. Maturin

Maturin was regarded by the inhabitants of Dublin as an eccentric figure. A tall, thin, pale man, he was often seen walking the streets dressed in a long, dark cape and black pantaloons with ragged hat and wig. An article written in 1846, many years after his death, claimed that upon being confronted by this strange figure, citizens of Dublin would often simply remark, "There goes Maturin" ("Memoranda" 133). As a Protestant minister in the parish of St. Peter's, Maturin was a well-known figure in the city. He was often to be seen at the salons of Lady Morgan, dancing late into the night ("Memoir"). A friend wrote, in a brief biographical sketch published in 1827 in *The New Monthly Magazine and Literary Journal*, that everything Maturin "said and did" was supposedly "converted into tea table speculation" ("Conversations" 401). The poet James Clarence Mangan believed that Maturin did not go out of his way to attract such comment. He wrote that "for all his bizarre appearance, Maturin did not seek attention but kept, rather, to byways and alleys on his perambulations through the city" (qtd. by van de Kamp, "Hands off!" 192). His image could also occasionally veer to another extreme. There were times when he could be met not in his long dark cape but in clothes of "canary coloured shapes" accompanied by a "black frock of most fashionable cut scarcely reaching to his knees" ("Memoranda" 133). This figure, "arrayed in extreme of dandyism", could on another day be seen "unwashed and unshaved, a pair old slippers on his feet, and his slender figure wrapped in a large brown coat of the rough dreadnought kind" ("Maturin" 248). This tendency of Maturin to waver between two extremes in his outward appearance was an indicator of his inward condition. At times he could be playful, joyful, and endearing but Maturin also showed signs of depression undoubtedly brought on in part by his precarious financial situation. A report in *The New Monthly Magazine and Universal Register* in 1819 declared him to be "the gayest

of the gay, passionately fond of society... of music, of dancing, of the company of the youthful, and the society of females” before adding that his “countenance... expresses only the profoundest melancholy” (“Memoir of the Rev. C.R. Maturin” 167). Three years earlier, on 22 June 1816, he wrote to an acquaintance, John Murray, that he was in “horrid dejection” and “had not a single friend to consult, no books, no excitement of any description” (“Letter to John Murray”). At one point, he confided in a friend that he believed suicide not to be expressly prohibited by the Bible and that he “conceived to pass away from the sorrows of the earth to the peace of eternity, by reposing on a bed of eastern poppy flowers, where sleep is death” (“Memoranda” 131-2). His death on 30 October 1824 was accompanied by rumours of a laudanum-induced suicide, but Maturin had been ill for some time and these rumours are discounted by recent commentators (Morin 28).

Maturin was born in Dublin in 1780. As an author he was active from 1807 until his death in 1824. Maturin never lived to see the culmination of the campaign for Catholic Emancipation but the Catholic question was the prevailing political issue of his day, especially in relation to Ireland. Although Maturin was a clergyman in the wealthy parish of St. Peter’s in Dublin, he lived on the verge of poverty for most of his adult life. He was nonetheless a representative of a minority church in Ireland whose members dominated the elite ruling class. The terror of this class at the prospect of the emancipation of members of the majority religion is reflected in Maturin’s work, including *Melmoth the Wanderer*.

We do not have a large amount of biographical detail about Maturin’s life. Sir Walter Scott, the famed Scottish novelist and a patron and correspondent of Maturin’s, enquired with the Maturin family about the manuscripts and other materials that

Maturin had left upon his death. Scott's intention was to edit Maturin's works and to write his biography but this project was never undertaken ("Memoranda" 134). A number of short biographies, however, appeared throughout the nineteenth century in various journals and reviews and a small volume of his correspondence, most notably with Scott, has survived. I detail some of the salient points from this material below.

Maturin was the youngest member of a large family. He is described as being "the pet" and "the hope" of his parents ("Conversations" 403). Maturin's father had an interest in literature that he no doubt passed to his son. He was said to have been "a man of sound understanding and refined taste in literature" and would have pursued a literary career except for the death of a potential patron ("Conversations" 403). Following this disappointment, Maturin's father was able to secure a small government post and from there worked his way up to the position of Inspector of Roads for Leinster with the Irish Post Office. Maturin himself loved the stage from a very early age and it is said that as a child when his parents were away he would convert "the back and front drawing rooms into an imaginary theatre and spouted with all the energy which always distinguished him when excited the wildest flights in Nat Lee's mad rant 'Alexander'" ("Art IV" 145). He would often raid the wardrobes of his mother and his father and clothe himself in "the most showy articles of dress" for these performances ("Art IV" 145). From this private display of acting out other people's work he graduated to writing his own pieces for his school friends who could not determine whether "they valued more highly the efforts of the author or the actor" ("Art IV" 145).

He entered Trinity College at the age of fifteen to study Classics where he formed for himself "a very considerable reputation" as a student and as a debater in the Historical Society ("Art IV" 145). A fellow student, however, later remarked that he was

“more remarkable for indolence and melancholy than for talent” (“Memoir of the Rev. C.R. Maturin”). It was as a student that he met and fell in love with Henrietta Kingsbury. Henrietta was the sister of Rev. Thomas Kingsbury, Archdeacon of Killala. They married while Maturin continued to pursue his studies. Following his graduation in 1800, Maturin entered the Church of Ireland and was ordained three years later. The Maturins had strong links to the Church of Ireland. Maturin’s grandfather was Gabriel Jasper Maturin, a Church of Ireland clergyman who was successor to Jonathan Swift as the Dean of St. Patrick’s in 1745, and his great-grandfather, Peter Maturin, had been the Dean of Killala earlier in the eighteenth century. These links were only strengthened by his marriage to a member of the Kingsbury family and it was through these connections that he was able to secure a curacy in Loughrea. Maturin did not adapt well to life in an Irish country town; his time there was an “absolute and hopeless exile from the world he adored” (“Art IV” 146). The one bright spot in his time there seems to be his visits to Cloghan Castle (Kramer 9). Maturin was a lover of old buildings and antiquities and was heard to speak fondly of Cloghan Castle and of the “Irish hospitality” he enjoyed there (“Memoranda” 130). Maturin lasted just a year in his first curacy at Loughrea and quickly returned to Dublin following his appointment as curate of St Peter’s. In leaving Loughrea he angered the Bishop of Meath who had recommended him for the curacy there. This slight against an influential figure began Maturin’s alienation from the Church of Ireland hierarchy.

Although St. Peter’s was in a wealthy and fashionable part of the city, it did not come with a handsome financial reward. Maturin in his role as curate there earned just £80 to £90 a year, a meagre wage. This income was supplemented with support from his father. Following his move back to Dublin, he lived in his father’s house with Henrietta

where they began their own family. Maturin lived a comfortable life, primarily because of his father's support, and was able to embark on a literary career. He published two novels at his own expense, *Fatal Revenge; or the Family of Montorio* in 1807 and *The Wild Irish Boy* in 1808. These were both published under the pseudonym Dennis Jasper Murphy. *Fatal Revenge* was Maturin's initial contribution to the gothic genre, before his widely-hailed gothic masterpiece *Melmoth the Wanderer* followed thirteen years later. Like parts of *Melmoth*, *Fatal Revenge* is set in the later seventeenth century and on the European continent. It is the story of two Italian brothers, one of whom swears revenge on the other after he perceives he has been cheated out of his inheritance. This brother, Count Orazio, immerses himself in the occult and restyles himself as Father Schemoli before wreaking revenge on his brother and his family. Maturin chose to set his next novel, *The Wild Irish Boy*, in Ireland and, as the title suggests, it was an attempt to capitalise on the success of Sydney Owenson's *The Wild Irish Girl*. It was not the first time that Maturin would attempt to write something motivated by public taste rather than his own. Maturin, for instance, also attempted his own version of Moore's *Irish Melodies*. A relative of his had convinced him to write poetry adapted to song. But the project was ultimately abandoned because, according to his biographer, his poetry was simply too good, too "immortal", to be attached to "congenial music" ("Conversations of Maturin" 405). Maturin made another attempt at poetry in order to celebrate the occasion of the King's visit to Ireland. Again, this poem was never finished. After writing four lines, he flung his manuscript into the fire because he believed that what he had written too closely resembled Moore. The lines were supposedly later communicated to a friend who passed them on to his biographer:

Stars of Erin, shine out! shine out!

The night of thy sorrow is past,

And the dawn of a joyous day -

Rises on thee and for thee at last.

(qtd. in "Conversations of Maturin" 406)

Neither of his first two novels, *Fatal Revenge* nor *The Wild Irish Boy*, were popular, but Maturin did not rely them for his security and was irritated but not dismayed by his lack of literary success.

Everything changed when, in November 1809, Maturin's father lost his job as Inspector of Roads due to a charge of misconduct. While Maturin was keen to point out in a letter to Scott that a board of inquiry judged his father's dismissal to have been unsuitably harsh, there had been nothing in the way of redress, which Maturin blamed on the current situation in Ireland: "while the Country is struggling for Existence, she has little leisure to attend to private complaints – in the Battle for life and death we are now fighting, the Cries of the wounded can neither be heard or pitied" (Ratchford and McCarthy 9). As a result of his father's ruin, Maturin, who had been used to a life of high luxury, became the sole supporter of his parents and his young family. In order to earn some extra money, he was forced to take boarders from the nearby Trinity College into his home. These were the children of wealthy families who were accustomed to a life of luxury that Maturin could not offer. He was also required to act as tutor to these young men, a position he did not relish. Financial tragedy was to strike once more. In 1814, Maturin provided surety for the debt of an acquaintance, who quickly reneged on the debt. Maturin was made liable for the entire amount and faced total financial ruin.

He tells Scott that “the only real evil of life is coming fast upon me – horrid actual want is staring me in the Face” (Ratchford and McCarthy 10). The experience embittered Maturin and would fuel some of his most powerful attacks on modern life in *Melmoth the Wanderer*.

He casually alludes to his “wife’s fortune” in the letter to Scott but states this was exhausted on the procurement of a spacious house that was “necessary for my Establishment” (Ratchford and McCarthy 10). The Church offered Maturin little recompense and little hope for improvement or advancement. He blamed this on his own religious opinions, which he describes as “High Calvinist”, and which he believed alienated him from his “Unitarian Brethren” and “Arminian Masters” (Ratchford and McCarthy 10). It also much to do with the way he had angered the Bishop of Meath in abandoning his curacy in Loughrea. Maturin then turned to literature as a possible way of funding the extravagant lifestyle to which both he and his family were accustomed. In 1812, he published his third novel, *The Milesian Chief*, and his second to be set in Ireland. The plot is set after the rebellion of 1798 and concerns the O’Morven brothers, one an Irish rebel leader and the other a British officer charged with tracking him down. Ireland at the time was a country still working through the consequences of 1798 and the subsequent union with Britain. *The Milesian Chief* was Maturin’s attempt at social and political commentary. The novel, however, was neither a critical nor a financial success and Maturin was led to declare there to be “no literary appetite or impulse in this Country” (Ratchford and McCarthy 10).

It was with the play, *Bertram; or The Castle of St. Aldobrand*, that Maturin had his first taste of literary success. The play tells the story of Bertram, a former favourite in the royal court, who has been driven into exile by Lord Aldobrand. Bertram returns to

Aldobrand's castle and discovers that Aldobrand has married Imogine, the girl Bertram had loved before his exile. Bertram, as part of his revenge, seduces Imogine before killing Aldobrand and is sentenced to death for his crime. Before this can happen however, a demented Imogine, driven insane by Bertram's actions, dies as she confronts Bertram. Bertram then steals a knife from one of the guards and ends his own life. Initially rejected by the Crow Street Theatre in Dublin, Maturin sent a copy of the manuscript to Scott who extolled its virtues to Byron, among others. It was first performed at Drury Lane Theatre in May 1816, with the famous actor, Edward Kean, in the lead role. The play went on to be such a success that the print version ran to seven editions in a year and Maturin made a significant sum from it.

Bertram also had a consequence that Maturin did not anticipate. For the first time, he dropped his pseudonym and revealed himself as author of *Bertram* and of the three novels by Dennis Jasper Murphy. He did this as a number of other people in London were laying claim to the authorship of *Bertram*. Maturin travelled to London but was disappointed by the reception he received. On 19 August 1816 Maturin wrote to John Murray saying that he "went over, not expecting much, and came back receiving nothing, not even common civility" ("Letter to John Murray"). The trip to London and the announcement of his authorship also served to alienate him further from the Church of Ireland hierarchy. On 4 July 1816 the *Morning Chronicle*, a London newspaper, wrote that "[a] private letter from Dublin states, that the Rev. Mr. Maturin, the author of *Bertram*, is likely to be deprived by his Bishop of a small living which he now has, in consequence of his having written that tragedy" (Ratchford and McCarthy 10). Maturin was never removed from his curacy but was constantly criticised for the perceived immorality of his work. One such attack came from the pen of the poet Samuel Taylor

Coleridge and, as a result of this, Maturin believed that “there is a strong party in London marshalled against any further dramatic attempt of mine” (Ratchford and McCarthy 90).

Maturin was primarily disappointed by the “literary men” of London. He met several of them at his publisher Colburn’s house and was disappointed by their conversation (“Memoranda” 128). He was most impressed by those associated with the theatre, most notably John Murray, the publisher of *Bertram*. He wrote to Murray following his return to Dublin in order and thanked him “for the only pleasant hours passed during my sojourn in London” (22 June 1816). Maturin was “flattered and caressed by some persons of rank on the committee of the theatre” during his time in London and was subsequently invited to their houses where “he was captivated by... the splendour and elegance that surrounded them; and his corresponding taste made him imagine that he could transfer something of this on his return to his own residence” (“Memoranda” 128).

Maturin, impressed by the opulence he witnessed in London and having coveted a luxurious lifestyle for most of his adult life, immediately spent the money earned from *Bertram* on renovating and furnishing his home. He decorated the walls of the parlours with panels that depicted scenes from his own novels and which are “painted by an artist of some eminence” (“Memoranda” 128). Accompanying these panels were “the richest carpets, ottomans, lustres, and marble tables” while “the most beautiful papers covered the walls, and the ceilings were painted to represent clouds, with eagles in the centre, from whose claws depended brilliant lustres” (“Memoranda” 128). Maturin, however, would never repeat the success of *Bertram*; his next effort, *Manuel*, was withdrawn after just five nights. In 1819 another play of Maturin’s, *Fredolfo*, was

performed in London and it too ended in failure. A visitor to his home noted that because of his lack of success with his follow-ups to *Bertram*, all the luxury of his home had disappeared and an embarrassed and impoverished Maturin was forced to “write laboriously for bread” (“Memoranda” 128).

In 1818, Maturin published his next novel, *Women, or Pour et Contre*. Scott recommended Maturin to Archibald Constable who agreed to publish the novel. It was the beginning of a fraught relationship that would be tested during the composition and publication of *Melmoth the Wanderer*. Maturin believed *Women* to be “wholly unlike any thing I have attempted before” (Ratchford and McCarthy 77). He also told Scott it would “set the evangelical world in arms, if they read it” (Ratchford and McCarthy 82). The novel is indeed an attack on evangelicalism but is also a love story played out between its three central characters: Charles De Courcy, Eva Wentworth, and Zara Dalmatiani. It was around this time that Maturin abandoned writing for the stage in order to focus completely on writing novels.

His next work was his masterpiece, *Melmoth the Wanderer*, which was published by Constable. There have been suggestions that Maturin’s precarious financial situation coupled with the negative reactions to his previous work had a detrimental effect on his mental health. His precarious and impoverished state was said to have “harassed his spirit” and “worked visible changes in the tone of his writings” (“Conversations” 401). Maturin was apparently obsessed by his creation and was close to a complete mental breakdown (Lougry 66). He would write late into the night and early morning fuelled by brandy which supplied to him “the excitement that opium yields to others” (“Memoranda” 132). Maturin’s state during these periods of composition was “strange and indeed terrible to witness”:

His mind travelling in the dark regions of romance, seemed altogether to have deserted the body, and left behind a mere physical organism; his long pale face acquired the appearance of a cast taken from the face of a dead body; and his large prominent eyes took a glassy look; so that when, at that witching hour, he suddenly, without speaking, raised himself, and extended a thin and bony hand, to grasp the silver branch with which he lighted me down stairs, I have often started, and gazed on him as a spectral illusion of his own creation. (“Memoranda” 132)

Maturin’s mental state affected the composition of the novel and contributed to a breakdown in relations between him and his publisher. The result of this was a two year delay between the commissioning of the novel and the final dispatch of manuscript by Maturin, which his publisher states was “a thing unheard of in Literary matters of this nature” (Kramer 95-6). It is difficult to determine how much of the structure of the finished work owes to Maturin and how much it owes to Constable and his printers. The entire saga and its consequences are discussed in more detail below.

The book would finally be published in 1820 and Maturin suggested that his next novel would be a sequel. Constable, however, would not entertain the idea. In 1824 Constable published one final novel by Maturin. This was *The Albigenses*, a historical novel set in the Middle Ages and inspired by the work of Scott. It was received in much the way of Maturin’s previous works and was not a success. Maturin would die that same year, on 30 October 1824. He died in poverty. Scott, upon visiting his widow, was

said to have “burst into tears” upon comprehending the family’s wretched situation (“Memoir of Thomas Furlong” lxxvi).

What of Maturin’s legacy? *Melmoth the Wanderer* is seen as his masterpiece and often as either the final great work of the first wave of gothic literature that began with Horace Walpole and Anne Radcliffe or as prototype for a particularly Irish type of Gothic literature that ultimately led to Sheridan LeFanu, Bram Stoker, and Elizabeth Bowen (Kelly 9). None of his other novels are widely read or written about. His play, *Bertram*, is the only other work for which he continues to be known. Christina Morin believes that, compared to Maria Edgeworth and Sydney Owenson, Maturin is a “cultural blank” among early-nineteenth-century fiction writers (1). Jim Kelly too believes that Maturin is often “bracketed away” in isolation from these prominent authors of his time (9).

Both *Melmoth the Wanderer* and *Bertram* were translated into French in 1821. *Bertram*, according to Victor Sage, became “an international hit”, although Maturin never seems to have been aware of this (“Introduction” xiii). The play ran, as *Bertram ou le Pirate*, for fifty-three straight nights. From there, it was adapted into an opera, *Le Pirate*, which was subsequently used as the basis for an Italian opera, *Il Pirata*. This Italian version was to be the beginning of the career of the famous composer, Bellini (Sage, “Introduction” xiii). The play eventually travelled to America and ran through three editions in New York, Philadelphia and Boston throughout the Civil War years (Sage, “Introduction” xiii).

Melmoth the Wanderer also gained a wide readership in France and its publication and translation there, according to Morin, suggests it had an “overwhelming appeal” to French readers (180). Sage writes that it became a classic of the Romantic

Sublime in France and influenced the development of the “roman frénétique”, a small romantic sub-movement in France influenced by the more macabre English Gothic novels (“Introduction” xiii). Honoré de Balzac was drawn to the novel and, in 1835, even penned a short sequel titled *Melmoth Réconcilié* where, in the preface, he praised Maturin’s work as “no less powerful than that of Goethe” (qtd. in Sage, “Introduction”, xiii). Charles Baudelaire was also a fan and called Melmoth “the epitome of the Romantic outcast” (qtd. in Morin 181). He also placed Maturin alongside Byron and Poe as having “projected splendid and shimmering beams on to that latent Lucifer who is installed in every human heart” (qtd. in Sage, “Introduction xiv).

Today, for the most part, Maturin and his works remain forgotten by the wider public. Even the landscape has been wiped clean of his memory. The house at which he lived in Dublin was torn down in the 1970s. The church where he preached during his brief time in Loughrea is gone. St Peter’s church on Aungier Street, where he preached for over twenty years, was also demolished in the late-twentieth century, replaced by a hostel. At this time, Maturin’s grave at St. Peter’s was also excavated and his remains were reinterred in a communal crypt in St. Luke’s in the Coombe, with nothing to identify his final resting place (Morin 2).

3. The Tales of *Melmoth the Wanderer*

Melmoth the Wanderer begins with frame narrative. This frame contains a number of sub-narratives that themselves contain further sub-narratives. The novel’s structure has been described as resembling a set of Russian nesting dolls or Chinese boxes. The main narratives or “tales” are described in table 5.1. Each of the main characters in the individual tales are linked by the title character of Melmoth the Wanderer who, around

Title	Time	Place	Type
The Frame Story: John Melmoth	1816	Ireland	Author's text
Tale of Stanton	1677	Spain/England	Manuscript
The Tale of the Spaniard	ca. 1800	Spain	Oral testimony
The Tale of the Indians	1676	India / Spain	Manuscript
The Tale of Guzman's Family	pre-1796	Spain	Oral testimony in manuscript
The Lovers' Tale	1660s	England	Oral testimony in manuscript

Table 5.1. The main tales in *Melmoth the Wanderer* and their time period, setting, and

the time of Cromwell's conquest of Ireland, sold his soul to the devil in exchange for forbidden knowledge, the ability to appear anywhere on earth, and an unnaturally long life. Melmoth will be consigned to hell at the end of his 150 years of existence unless he can convince another person to take his place. Melmoth tempts each of the protagonists of the individual tales and promises to relieve them from their temporal pain in exchange for their eternal soul.

The frame narrative is set in Ireland in 1816 and concerns the story of John Melmoth, descendent of the Wanderer, who comes to his uncle's decaying manor in Wicklow to attend his deathbed. This tale is then interrupted by another narrative discovered in a crumbling manuscript, Stanton's tale, which brings us to Spain and then England shortly after the Reformation. The manuscript is the story of the travels of an Englishman named Stanton and his subsequent imprisonment in a madhouse where he is visited by the Wanderer and refuses his offer. We then briefly return to the frame

narrative before meeting the Spaniard, Alonzo Monçada, who narrates for John Melmoth the story of his life in Spain. As a boy, Monçada was consigned to a monastery for his mother's crime of bearing him outside of marriage. He belongs to a noble Spanish family and so his adoption of the monastic life is seen as a great national importance. Monçada attempts to escape from the monastery with the help of his brother and another man, known as the parricide, but instead falls into the hands of the Inquisition. Monçada is visited when imprisoned by the Inquisition by Melmoth and, like Stanton, refuses his offer. After a fire consumes the prison, Monçada escapes to the household of a Jewish family who are attempting to hide their faith from the Inquisition. It is in a room beneath this house that Monçada encounters a man named Adonijah, who has been recording the history of the Wanderer. He shows Monçada a manuscript containing the "Tale of the Indians" and tells him to transcribe it in order to preserve the knowledge of the Wanderer's life. Back in the frame narrative, Monçada narrates the events described in the manuscript to young John Melmoth.

The "Tale of the Indians" tells the story of Immalee, a young Spanish girl who, following a shipwreck, grows up on a deserted Indian island. The natives from the surrounding islands and mainland worship Immalee as a god. When Immalee is seventeen years old, a stranger, who we learn to be Melmoth the Wanderer, visits her. Melmoth teaches Immalee about the outside world and about religion in particular. During these visits, Immalee falls in love with the Wanderer. She is eventually rescued from the island and is returned to her family in Spain where she reverts to her Christian name, Isidora. Expecting her to be a strict Catholic, the family is shocked at her blasphemous beliefs. She refuses to accept that religion should consist of hearing mass, going to confession, and believing in the teachings of the Catholic Church without

question. Isidora's mother shocks the family priest, Fra Jose, when she confides in him that her daughter seems to require "neither director or confessor but her own heart" and will often retire to her room not to pray but to think (Ch. 20). Melmoth once more discovers Isidora and the two are married in a clandestine ceremony in the dead of night. Her crime is soon discovered and she is placed into the hands of the Inquisition, who have been hunting the Wanderer. It is here that Melmoth appears to her one last time and finally makes his offer, which Isidora refuses. She dies in the prison of the Inquisition along with her newborn child, the son of Melmoth the Wanderer.

This tale contains a further two narratives which are narrated to Isidora's father, Don Aliaga. The first is the "Tale of Guzman's Family" and is the story of the Protestant family of a man named Walberg. They are brought to Spain from Germany on the promise of immense wealth to be left to them by a man named Guzman, brother of Walberg's wife, but are ultimately left nothing. Walberg succumbs to madness as his family begin to starve to death in front of him before finally being visited by Melmoth. Walberg refuses his offer and his family are lifted out of poverty by the discovery of Guzman's true will. The second tale contained within the "Tale of the Indians" is "The Lovers' Tale". This is the story of of Elinor Mortimor and it takes place in England shortly after the Reformation. Elinor is left broken-hearted by the abandonment and subsequent insanity of the man she loves before being tempted by Melmoth. She looks for aid from a local curate who is shocked to discover that Melmoth is a man he knows to have died many years ago. Once discovered, Melmoth flees. The novel eventually reverts to the frame narrative where John Melmoth and Monçada are interrupted by the appearance of the Wanderer himself. The Wanderer has returned to his ancestral home after 150 years in which he could convince no human to commit their soul to him. The

novel ends with the disappearance of the Wanderer, apparently dragged over the edge of a cliff and to his eternal doom. However, there is no definite resolution.

4. Critical Introduction to *Melmoth the Wanderer*

4.1 History

Melmoth the Wanderer is a novel preoccupied with history, and with Irish history in particular. Nowhere is this more evident than in its title character. Melmoth the Wanderer is over 170 years old, a living piece of history. His brother was an officer in Cromwell's New Model Army who obtained lands in Ireland following their confiscation from a Royalist Catholic family in the seventeenth century. Members of Cromwell's New Model Army were granted lands in this way in place of their wages, which the Commonwealth of England could not afford to pay. This new landed gentry replaced the old Catholic gentry as the basis for Irish society and shaped its development throughout the eighteenth century and on to the early nineteenth century, when Maturin wrote his novel. The memory of this confiscation of lands was never allowed to fade into history by either the possessors or the dispossessed. As Kevin Whelan writes:

This consistent sense of irrelevance, of having their legitimacy only grudgingly conceded, of being an embattled minority rather than the nation of Ireland haunted the landlord psyche in the post-1798 period when their position seemed ever more precarious in a newly volatile, politicised, sectarianised and strife-torn island (35).

The unresolved issue of land ownership caused an ongoing conflict in Irish society and generated a number of “anxious issues” throughout the eighteenth century such as “the illegitimacy of the new gentry, access to political power and its denial, the sectarian state, [and] the Catholic question” (Whelan 4). *Melmoth the Wanderer* begins with John Melmoth travelling to the Melmoth estate in Wicklow which he is soon to inherit from his dying uncle. John not only inherits his uncle’s land, however, he also inherits the anxieties of the Protestant landed class. And, on top of this, he also inherits the knowledge of the existence of the Wanderer, who now begins to haunt John.

Melmoth the Wanderer’s own transgression, the selling of his soul, is linked to his family’s transgression: their confiscation of lands from the native Irish population. The past is never over in *Melmoth the Wanderer*, and the Melmoth family have a constant reminder of their own past in the cursed body of the Wanderer. Stanton is a man deceived, placed into a mad-house, and then traumatised by a visit from Melmoth. He then journeys to the Melmoth family home on the Wicklow coast in search of the Wanderer. When he does not find the man who tormented him, he leaves the family with a manuscript detailing Melmoth’s crime. This is formal, written history of the Wanderer’s transgression and a reminder of the Melmoth family’s implication in historical crimes. Monçada, another character tormented by Melmoth, is shipwrecked in front of the Melmoth house, another soul come to remind the Wanderer’s family about their past transgressions. Melmoth’s interactions with the people of Europe - Stanton being an Englishman and Monçada being a Spaniard - mean that knowledge of the Melmoth’s transgressions is not confined to Ireland. Laura Doyle has argued that Melmoth’s “wandering” of the globe, and the carrying of stories from one locale to the

other, is part of the gothic genre's contribution to an "anxious global consciousness" (516).

A portrait of the Wanderer is also one of the Melmoth family's unwanted heirlooms. This portrait is dated 1646, prior to establishment of the Melmoths as a landed family in Ireland. This date was a particularly turbulent time in the history of Ireland and Britain and places the creation of Melmoth's painted image in the middle of the Wars of the Three Kingdoms. 1641 was a particularly significant year in Irish history as it saw the outbreak of rebellion among the native Catholic population, primarily in Ulster, and led, ultimately, to the Cromwellian conquest and subsequent plantations. The 1641 rebellion was, for conservative Protestants in the 1790s, evidence that Catholics in Ireland could not be trusted (Whelan 110). And, as Oliver MacDonagh points out, the relationship of the 1798 rising to the 1641 rising became an immediate matter for debate following 1798 (4)

Melmoth represents a historical reversion to a time of bloodshed and war. And history can never be interpreted, and can certainly never be overcome, when it is still being lived. In Ireland in the early nineteenth century, history pervaded the present moment. As Boyce argues, the Catholic Irish population in the nineteenth century was characterised by "a strong sense of history and past wrongs and humiliations" (15). But solutions were not straightforward, even if past injustices were to be acknowledged. As Boyce writes, "injustice, when based on the past, was not easy to remedy in the present, because concessions scarcely compensated for wrongs which ought never to have happened in the first place: a sense of grievance was not the same thing as a complaint, and was not necessarily subject to legislative solutions" (15). The consequence of such a mindset was that it would be very difficult to achieve a solely political solution to the

Irish problem because the very political powers offering the solution were seen by the aggrieved as having no right to those powers in the first place.

In Maturin's time, it was the memory of the 1798 rebellion in particular, as well as the subsequent political union of Ireland and Britain, that continued to be contested. But the interpretation of those relatively recent events fed into a larger debate about the Irish nation, the Irish people, the Irish past, and the Irish future. And, in this period, "the Irish question" ultimately stood for "the Catholic question". Irish nationalism, in the years following the union, was increasingly associated with Catholicism. This alarmed Maturin, who was one of the few Protestant Irish nationalists to be found on the island following the union. Catholicism, in his view, was a dangerous and violent religion and he despaired at the thought of a Catholic Irish nation. Maturin saw Catholicism as the antithesis of freedom. For him, the Catholic faith chained a person's individual spirit to a violent and irrational doctrine. He believed that the campaign for emancipation of Irish Catholics from Protestant rule was an absurdity and that Catholics would only truly be emancipated when they abandoned Catholicism.

It was in the late-eighteenth century and early-nineteenth century that historians of Ireland began to engage more extensively with the vexed politics of the country. Oliver MacDonagh has argued that modern Irish historiography itself began in 1790 with the publication of Revd Edward Ledwich's *Antiquities of Ireland* (1). Ledwich was attempting to counter the work of Charles O'Connor and Thomas Wyse, founders of the Catholic Committee, whose approach to history and antiquities was to locate and preserve a history of pre-conquest Ireland, before the Norman invasion, and so to preserve a traditional Gaelic culture, or as they saw it a "true" Irish culture, that had

been interrupted by 700 years of occupation. Their scholarship, therefore, had a political goal. As MacDonagh argues, if a history of a pre-conquest native civilisation could be established then this would undermine the conquerors' claims to superiority based on their own supposedly more advanced culture and thus weakening their claims to power (2). But, as MacDonagh points out, Ledwich had realised the consequences of the establishment of a history of a pre-conquest native Irish civilisation and his counter to these historical claims, to a romantic and glorious view of the Irish past, was his *Antiquities of Ireland*. However, the real significance of this book, argues MacDonagh, is that it turned the Irish past into an "arena for current Irish political conflict" (1). Following the union, the work of both Protestant and Catholic historiographers intensified, with the former working to undermine the latter's development of a pre-Norman romantic history of Ireland. The significance of this "scholarly warfare" for MacDonagh is that time itself had been so foreshortened that character of ancient Ireland was seen as validation or invalidation of early-nineteenth-century politics and society (2).

According to R.F Foster, intellectual life in the period immediately following the Union reflected the "for or against" attitude towards the Act of Union that characterised wider Irish politics and society. This was most notable, writes Foster, in the field of history, which was "becoming an Irish obsession" (290). The subtext of historical surveys of this time, such as Taaffe's *Impartial History of Ireland*, published between 1809 and 1811, and Plowden's *Historical Review of the State of Ireland*, published in 1803, was the debate about the legitimacy of the Union. The past was often enlisted in order to aid some argument or another and "an Irish habit of historical-political argument became quickly evident" (Foster 290).

History, too, was a concern for the United Irishmen, a group of Enlightenment figures who wanted to create an independent and secular Ireland. This would involve admitting Catholics to positions of governance and disestablishing the Protestant Church of Ireland. Their radical politics eventually led to the 1798 rebellion. Significantly, the United Irishmen, according to Whelan, “subscribed to the revolutionary orthodoxy of repudiating the past, and specifically the Irish past” (59). The continuous evocation of the Irish past, for the United Irishmen, merely served to propagate a sectarian society. History was divisive and so history would be disconnected from the present.

Ireland, however, was not a blank slate upon which the United Irishmen’s Enlightenment notions could be inscribed. Whelan’s reading of the aims of the United Irishmen is informed by Montesquieu’s Enlightenment delineation of a society’s national character (*l’esprit*) and that society’s laws (*les lois*). For Montesquieu, every society had a number of innate characteristics determined by its geography, its climate, its diet etc. These then determine the historical evolution of a society and shaped its *l’esprit*. A society’s *l’esprit* should then determine *les lois*, the laws of a society. But, as Whelan points out, the balance between *l’esprit* and *les lois* in Ireland during this time was “fundamentally disturbed by the position of Catholic Ireland” (60). The national character of Ireland was overwhelmingly Catholic; its laws, however, were completely determined by the Protestant Ascendancy class. As the United Irishmen saw it, Irish society could not fulfill Enlightenment goals without the admittance of Catholics to political power. Following this acknowledgement, writes Whelan, there would be two options: “to reform the people (i.e. the Catholics) so that *l’esprit* would

become congruous with *les lois*, or to change *les lois* to make them reflect the Irish *espirit*” (60).

The United Irishmen would choose to follow the latter path, the reform of the laws and system of governance in Ireland. For Maturin, however, if we consider his *Five Sermons on the Errors of the Roman Catholic Church* in tandem with *Melmoth the Wanderer*, we can establish that his preferred option would have been the reform of the Irish people. Maturin, in an Ireland where the Church of Ireland was not propped up by the state as the established church of the nation, risked losing the only thing that gave him a superior and respected position in Irish society. The United Irish treatment of the past is important to consider. They were something of an anomaly in Irish society at that time in that they made a conscious repudiation of the past. This was at odds with the Defender movement, for instance, who embraced history and who saw Catholics as the authentic and native inhabitants of Ireland. Similarly, but coming from the opposite end of the religious spectrum, the Orange Order embraced the past through commemoration and in particular the historical moment, the Glorious Revolution and the Battle of the Boyne, that had secured the establishment of the Protestant minority in Ireland as the ruling elite.

Whelan argues that one conservative Protestant response to the United Irish threat was an “appeal to the past” in order to strengthen ties within the Protestant community (110). This involved a reminder of the 1641 rebellion as a way of highlighting the dangers of Catholicism. Conservatives saw the United Irish attempt at severing links to the past as potentially fatal, as it would sever the historical link with England and thus would threaten the links between Protestants throughout the island. For conservative Protestants, a severing of links to the past would ultimately topple the

Protestant Ascendency which “depended on the English connection and on upholding the Glorious Revolution” (Whelan 110). As Whelan puts it:

The conservative response to the United Irish appeal to the future was therefore an appeal to the past, a backwards glance which emphasised the ethnic and religious fissures in Irish society, the old reliable hatreds which had facilitated stable government in the century following the Boyne (110).

Over twenty years later, Maturin would personify the “appeal to the past” through the character of the Wanderer. But, this time, the past was not something good that strengthened bonds and engendered loyalty. Instead, the past was a curse and destined to repeat itself.

In the latter part of the eighteenth century, the British state moved to make concessions towards Catholics. After the passing of the Catholic Relief Act 1782, Catholics were once again free to purchase land and to open Catholic schools (with permission from the local Protestant Bishop). 1791 saw the passing of the Roman Catholic Relief Act in Great Britain and in 1793 this was extended to Ireland. In effect this act decriminalised the Catholic religion, provided that the individual swore an oath of loyalty to the reigning sovereign. In Ireland, the act also permitted Catholics to take degrees at Trinity College, Dublin. The passing of such acts alarmed the conservative Protestant population in Ireland who saw these concessions as a threat to their position of superiority and power. Whelan points out that it was around this time that the Protestant Ascendency began to withdraw from nationalism and to withdraw from

seeing themselves as the Irish people and a sister kingdom to England (107). Protestant nationalism depended on a climate free from fear, but as the British state began conceding to Irish Catholics so that, for example, they could draft from Irish soldiers in order to strengthen their military power thereby allowing Britain to continue its war with France, Protestant nationalism began to decline. In the 1790s, as old wounds opened up and the past came to bear on the present, Protestants in Ireland were suddenly reminded of the precariousness of their position, a minority ruling class who attained their position through conquest. This meant that they retreated away from their self-image as the people of Ireland and towards a more aggressive assertion of their power, as rulers propped up by the British state. But most alarmingly of all for Irish Protestants was that, after 1791, it was to become evident “that Britain increasingly regarded Protestants and Catholics as equals in Ireland” (Whelan 107). And the significance of this movement away from a policy of sectarianism in Ireland by the British state was that Irish Protestants had to “develop a common identity as Protestants, not Irish” (Whelan 108). This is the moment at which the concept of a “Protestant Ascendency” began to gain traction among conservative Irish Protestants. And, as Whelan writes, “[a]cquiescing in the Act of Union marked the end of Protestant Ireland’s representation of itself as “the Irish nation” (129).

1798 and the Union also brought an end to Enlightenment dream of a secular and equal Irish nation. Irish nationalism, from then on, would become increasingly associated with Catholicism. As Whelan succinctly puts it, “[t]he generous current of Irish nationhood, fed by many tributaries, as envisaged by the United Irishmen, was canalised into a narrower Catholic channel by the ruthlessly efficient engineer of the new Irish politics – Daniel O’Connell” (130). For McDonagh, while the majority of

Protestants had abandoned the idea of the Irish Nation immediately following 1798 and the Union, the process of moving to a fully-conceived notion of Irish nationhood based on Catholicism was more prolonged, and was completed between the years 1795 and 1845. This places Maturin and *Melmoth the Wanderer* in the era of the final decline of the Protestant Irish nation (17). In this context, we can see why, when John Melmoth arrives at his uncle's estate in Wicklow at the opening of the novel, he is greeted by dilapidation and ruin, with his uncle dying in his bedroom surrounded by a group of Irish Catholics, while even more are gathered in the kitchen, waiting for his death. His sole heir is John, his nephew, a student with little experience of the world. He is the last of the Melmoths except for one, the Wanderer.

“The 1798 rebellion”, writes Whelan, “was fought twice: once on the battlefields and then in the war of words which followed in those bloody footprints” (133). The 1798 rebellion dominated much of the political debate surrounding the Act of Union and its aftermath. It “never passed into history, because it never passed out of politics” (Whelan 133). The ability to construct a shared past and to mould a collective memory was a powerful political tool. Whelan notes that the political attempts to construct a narrative of the past in which the significance and the *meaning* of 1798 could be elaborated “were deeply implicated in the existing political divisions” (133). Jim Kelly argues that it is this kind of conflict, one between history and memory, that is at the heart of *Melmoth the Wanderer*. Melmoth is the only character in the novel that “has any access to an accurate history, or at least one that can be characterised as delivered with “a minute fidelity” (171). Melmoth's longevity allows him to offer authentic eye-witness accounts of events and occurrences that fall well beyond the bounds of the standard human memory and, for Kelly, this establishes the character of

the Wanderer as “a cipher for unresolved historical conflict” (150). The character of Melmoth the Wanderer is an allegorical representation of the strained relationship between eye-witness accounts and historiography. He is both the speaker and the subject of history, both the “representative and the representation” (Kelly 150). Kelly argues that Maturin was preoccupied with the relationship between history and memory; he is constantly returning to “the difference between a lived historical memory and more ‘objective’ forms of historical inquiry” throughout the novel (Kelly 169). Similarly, Baldick states the novel is “secretly as much about transmission as it is about transgression” (xii). In this way, Baldick points to a paradox: Melmoth cannot pass on his curse but nevertheless forces other characters to absorb the knowledge of his burden and to pass it on through written or oral testimony. In nineteenth-century Ireland, memories of past wrongs committed survived by their transmission through subsequent generations. In 1808 a man named Thomas Halpin, while carrying out undercover work in the Limerick area, experienced this first hand when he was told by someone of an act committed in 1690 that would yet be revenged (Bartlett 319). Halpin wrote that the people seem to know the “minutest circumstances” of an event a hundred years ago “as well as if it was a transaction of a late date” (qtd. in Bartlett 319).

Eagleton sees time and history in *Melmoth the Wanderer* as suspended. He argues that Melmoth has been frozen in an “eternal present” and ties this to McDonagh’s characterisation of the Irish view of history in which “a wrong, once perpetrated can never be undone by chronological succession but is doomed ceaselessly to re-enact itself” (190.) Joep Leerson too sees MacDonagh’s characterisation as significant. For Leerson, in nineteenth-century Ireland, “bygones are anything but bygones, and the past continues to carry an immediate ideological relevance for current

attitudes and current affairs” (9). In nineteenth-century Ireland, and in *Melmoth the Wanderer* in particular, history can never be interpreted because it never concludes. Conciliation is obstructed because sins can never be atoned for, wrongs never righted, crimes never punished, and transgressions never forgiven. As Victor Sage puts it, history in *Melmoth the Wanderer* “is a subject, but not a process” (“Irish Gothic” 139). Instead of a broad an encompassing history, Maturin is holding a “broken mirror” up to that history (Sage, “Irish Gothic” 139). He is not interested in showing the process of history nor is he interested in describing some sort of coherent historical narrative. As Sage argues, Maturin is “interested in allegory, structural repetition, variation, refraction, and romance plots of disguise and revelation rather than the assimilation of point of view to a grand sweep of historical narrative” (“Irish Gothic” 139). There can be no lessons learned from history because it is always present in the character of Melmoth the Wanderer who has obtained, through his transgression, mastery of space and of time. The novel, says Sage, is historical narrative “turned inside out” (“Irish Gothic” 140).

One of the reasons that the memory of 1798 was so contested was because of its intensely sectarian nature. Stories of religiously-motivated attacks and massacres were common on both sides of the conflict. The rebellion had a religious character that was evident even in the months leading up to the wider outbreak in the summer of 1798 (Bartlett 232). Stories of Catholic cruelty were widespread. Sections of the Protestant population were relishing the outbreak of insurrection and anti-Catholic sentiment was spreading. In March 1798, the Lord Lieutenant of Ireland, the Earl of Camden, declared that:

Eager Protestants [are] calling the present conspiracy a Popish plot, are indulging in the language and conduct revolting to the Catholics, are encouraging the Orange men, avowing themselves of their society, and [are] averring that until the Penal laws against the Catholics are again enacted the country cannot be safe (qtd. in Bartlett 232)

A young Daniel O'Connell recognised the increased hostility and remarked that "the odium against Catholics is becoming every day more inveterate" (qtd. in Bartlett 232). Camden, upon the outbreak of open rebellion, observed that "party and religious prejudice has literally made the Protestant part of the country mad" (qtd. in Bartlett 232). Stories of massacres and atrocities abounded both during and after the rebellion. The rebellion was framed as "a 'Popish Plot', a religious war, or even a return of the 1641 rebellion" (Bartlett 235). But it was not only the Protestant population that had been terrified by the outbreak of violence. As Boyce writes, "there was the simple fact that '98 had produced enough horrors to frighten and offend the bulk of the Catholics of Ireland, who were far removed in sentiment from the Gothic bloodlust frequently attributed to them in the frenzied months of the rising" (30).

The rebellion was quelled in September despite the arrival of over a thousand French troops in early August (Bartlett 234). The very fact that French troops had touched down in Ireland terrified the administrations in Dublin and London and for many it was further evidence of Catholic disloyalty. According to Bartlett, the rebellion had "shattered relationships within Ireland" and had evoked fears and awakened memories of 1641 (Bartlett 234). The rebellion had also called into question to very future of the Irish political and constitutional settlement.

The political response to 1798 was the Act of Union. This too was divisive. Its goal was to settle the Irish question once and for all, through the assimilation of Ireland into the political unit of the United Kingdom. The Acts of Union themselves were a pair of complementary acts passed by both the British and the Irish parliaments in 1800. The acts came into force on 1 January 1801. The text of these acts stated that “in order to promote and secure the essential interests of Great Britain and Ireland, and to consolidate the strength, power and resources of the British Empire, it will be advisable to concur in such measures as may best tend to unite the two kingdoms of Great Britain and Ireland into one kingdom” (“Union with Ireland Act 1800”). Initially, it was believed that the Union would involve concessions to Catholics. As Bartlett states, it was a widely-held political position that “Catholic disloyalty” could only be tackled through a legislative union with Great Britain (Bartlett 228). Any potential union was, for a time, regarded as a precursor to Catholic Emancipation. However, the union that was eventually carried by the British and Irish parliaments was a “purely Protestant” one that “would prove a fatal bar to the final resolution of the Catholic question” (Bartlett 228). Catholics in Ireland, instead of being subsumed into United Kingdom as equal citizens, found themselves fighting the same fight as they had prior to the union. The acts created a single parliament, which would sit in London, and to which both the enfranchised people of both Ireland and Great Britain would elect members. Catholics, however, could not sit in that parliament. In failing to address the status of Catholics, the Act of Union ensured that the Catholic question, and the Irish question, would remain open.

In 1818, at the time Maturin began composing *Melmoth the Wanderer*, Ireland was in a period of relative inactivity with regard to the Catholic question. The Catholic

movement had suffered as a result of division and infighting in the preceding years. The mass politics of O'Connell was still years away; Catholic Emancipation itself was more than a decade away and would not come to pass until 1829. But the question itself had not been resolved.. For example, in 1818, the year Maturin began writing *Melmoth*, Charles Grant was appointed to the post of Chief Secretary in Ireland. Grant was a known supporter of Catholic Emancipation and, even though this had little to do with his selection, it signalled “that the catholic question was to be considered an open one” (Connolly 66). Also, by 1818, a large majority of Irish M.P.s were in favour of Emancipation, and an “identifiable and often crucial Catholic interest was evident in most constituencies” (Bartlett 297).

Maturin was not a politician and there is no evidence to suggest that he was directly involved in politics. He had supposedly been courted for patronage by the state who at one point sent an official out to his home to put the offer to him, but Maturin made a poor impression on the man and the idea was abandoned (“Memoranda” 128). Maturin was, according to an 1892 memoir, opposed to the Union and was keenly aware of the struggles of his home country (“Memoir”). In a letter to Scott, Maturin bemoans his fragile financial situation but recognises that national issues are of more importance than his own: “[W]hile the Country is struggling for Existence,” he writes, “she has little leisure to attend to private complaints – in the Battle for life and death we are now fighting, the Cries of the wounded can neither be heard or pitied” (Ratchford and McCarthy 9). Dale Kramer claims Maturin was a “fervent nationalist and opponent of the Act of Union” with a “fondness for Irish tradition and affection for the miserable Irish masses” (12). In the preface to his first novel, *Fatal Revenge; or the Family of Montorio*, Maturin, while hiding his identity proudly declares his nationality: “let this

serve to inform my Readers, that I am four and twenty, that I never had literary friend or counsellor, and that I am an *Irishman* of the name of Dennis Jasper Murphy” (emphasis in original) (*Fatal Revenge* viii). His adopted pseudonym did indeed have a very Irish ring to it; Maturin later agreed with a visitor to his home who suggested that his pseudonym’s “vulgar and *merely* Irish sound” injured the sales of his early novels (“Maturin” 248).

On 15 July 1801, around the time of his graduation from Trinity College, he wrote a letter to William Conygham Plunket, a champion of the cause of Catholic Emancipation. In this letter he expresses his admiration for the man and his support for the cause of emancipation. Two decades later, in 1824, the year of his death, he delivered and published his *Five Sermons on Errors of the Roman Catholic Church*. In these sermons, Maturin rallies against a wide variety of what he perceives to be flaws in the Catholic belief system and in the institution of the Church. He questions the very foundation of the Catholic Church in the figure of St. Peter and takes issue with numerous Catholic sacraments, while coming out against the concept of tradition as a basis for truth. He occasionally wanders into the political realm, however. In his first sermon, for example, he asks: “And is this, then, a time to be silent? - and if it were, is this a country to be silent in?”, the implication being that the Catholic question in Ireland remained an open one (*Five Sermons* 18). While the majority of his audience are obviously members of the Church of Ireland, he does acknowledge that his sermons have attracted a number of Catholics into his audience: “I entreat, therefore, my Roman Catholic brethren, as I perceive many of them are present...” (*Five Sermons* 29). Maturin’s language is quite moderate, he saves his rancour for institutions and specific expressions of faith. At the outset of his second sermon he declares “in the strongest

language, that I am about to direct my present address, not against Catholics, but against Catholicism - not against individuals, but against abstract opinions” (*Five Sermons* 27). He claims that of all the Protestant ministers in Dublin he has had the most dealings with Catholics and has found many of them to be “truly amiable and excellent” (*Five Sermons* 27). He tells his congregation that in such company he has often held his tongue on what he perceives as errors in the Roman Catholic faith and, apparently, errors in the pursuit of Catholic Emancipation. For Maturin, the “true Catholic Emancipation” is “the emancipation of the intellect and the conscience” (*Five Sermons* 28). That is, emancipation from the Catholic religion itself. Maturin, while remaining moderate for most of these sermons, becomes confrontational in his fourth sermon, most notably when responding to a book of sermons published in 1822 by a Catholic priest, Rev. Mr Hayes. Maturin cites a number of lines from this book which he claims are confrontational and designed to antagonise Protestants. Maturin then uses this language as a stick to beat the entire cause of Catholic emancipation by asking that if this is the kind of language that Catholics use when they are “in a state of oppression, privation, and persecution” then what kind of language would they use “if they obtained all they demand” (*Five Sermons* 97). Maturin stops himself here and tells his audience that he does not interfere with politics and he “resign[s] the question to deeper heads than mine” (*Five Sermons* 97). But he cannot resist and ends his fourth sermon with a rallying cry to Irish Catholics. “Roman Catholics of Ireland hear me!” he bellows from the pulpit,

Ye call on the rulers of the land for emancipation - *emancipate yourselves* from the yoke that has pressed on your intellects and your

consciences for centuries, - a yoke that neither you nor your fathers were able to bear - a yoke that centuries ago has been shaken off by countries less civilized, as well as by the most civilized countries in Europe, England, and Scotland. Whatever be the civil restraints ye complain of, I do not judge; but remember this, that the restraints ye voluntarily bear are a thousand times more deadly than any earthly despot could possibly lay on man. The shackles of political restraint when once broken, leave no marks; but the iron of priestcraft "entirety into the soul." You are a high-feeling, a high-fated people. Wherefore are ye not a happy, and a free one? - because ye do not *dare to think*. For centuries you have been deluded, benighted, and misled; and while Europe involuntarily eulogized your genius and valour, Europe has wept for your blindness, bigotry, and infatuation.

Would you be *free*? *Enfranchise yourselves*. Say to your priests, we reverence your function - we respect your persons - but we *will* think for ourselves. We *will* read the Scriptures, to know what the religion of Christ is; we will read history, to know what the Roman Catholic religion has been; will compare; we will judge; we *will decide for ourselves*. Say this respectfully; but do it resolutely - do it perseveringly - and unborn ages will bless the event. In your struggles for what you call political freedom, remember that spiritual freedom is far above it, and *that* freedom every man can bestow on himself. (*Five Sermons* 123-4)

In his fifth and final sermon on the errors of the Roman Catholic Church, Maturin claims that thus far his language has been moderate. But if Roman Catholics do not respond in equal tones of moderation, says Maturin, he will “unclose those stores of horror and of absurdity of which History keeps key” and will “lay bare the foul and festering corruption to the loathing eye of day” (*Five Sermons* 131-132). But Maturin had already done so, he had already exposed some on the “horrors” of the Roman Catholic church and he did it through his fiction, through his novel *Melmoth the Wanderer*. For Maturin, the Inquisition was the “most direful instrument of popery” (*Five Sermons* 118). He says that “every Irish heart, no matter whether it beats in a Roman Catholic, or a Protestant breast” should “triumph” at the fact the Inquisition never reached Ireland (*Five Sermons* 118). Through the interlocking stories of *Melmoth the Wanderer*, Maturin describes the horror of that institution and his fears of the Catholic Church as the dominant force in Irish society.

In these sermons, and in *Melmoth the Wanderer*, we read Maturin’s fear of an Irish national identity that was increasingly being defined in Catholic terms. Maturin was a nationalist, a unionist, and was proud to be Irish. He was an Irishman and a Protestant and his flavour of nationalism was such that he saw the future of Ireland as ruled by Irish Protestants like him with no or limited British influence. He was a leader in his community, albeit an outsider in his own Church. But, even so, he had a stake in Ireland’s future. His fear was not of the people of Ireland but of Rome. This is why he points to the European mainland so often in *Melmoth the Wanderer*. He is showing a vision of an Irish future that he believe has a real danger of coming to pass. In his final sermon, we witness Maturin’s fear, not of Irish Catholicism as it was then, but of the

Irish Catholicism that could come to be under the increased influence of European Catholicism:

It is not from this country that we are to take our estimate of the Roman Catholick Church - here, under the eye of a more enlightened community, her laity are reserved and circumspect, and her priests cannot, as in other countries - play such fantastic tricks before high heaven, as might make angels weep. Look to where she has established her head quarters - look to Spain - to Portugal - to Italy - what a picture do they present? A Clergy without learning - a nobility without education - a commonality without occupation - a population without subsistence - a mass of mendicants without number - and a country without a national character, save that of indolence, beggary, sensuality, and superstition - a country that unites the widest extremes of mental and moral degradation, and combines all the refinements of vice, with the simplicity of the profoundest ignorance — where the libertine rushes reeking from the brothel to the confessional, and the shrine gives alternate shelter to the penitent and the assassin - a country, where the native, the born vassal of the deadliest of despots - priestly power - dare not even call his *soul* his own—where he lives without one generous purpose - one lofty thought, one glorious aspiration after mental distinction or moral utility - nay, even one improvement in science, or one effort of imagination; for the latter would consign his book to the Index Expurgatorius; and the former, his person to the prison of the Inquisition - in a word, where those who

slumber *on* the surface of the ground, scarce differ from those who slumber below it, and the tenant of the soil is like the tenant of the grave. Such is the picture of Italy, the head quarters of the Roman Catholic religion—such are the effects of that religion, where it is permitted to reign unbounded and uncontrolled. (*Five Sermons* 154-155)

The “Tale of Guzman’s Family” perhaps comes closest to a portrayal of Maturin’s own personal and immediate fears. Despite the name of the tale, the story is in fact about the Walbergs, a Protestant family newly arrived in Catholic Spain. They have left their home in Germany following news of the ill-health of the brother of Walberg’s wife. The family are informed that they are Guzman’s heirs and are due to receive his large fortune on his death. The Walbergs are, however, cheated out of their large fortune by a group of treacherous Catholic monks. Being a Protestant family in a Catholic country, they are left to starve by the community they have arrived into. A Protestant family surrounded by a majority Catholic population who are ill-disposed towards them, it is hard not to read this as allegory of the Anglo-Irish population of Ireland surrounded by a majority Catholic population hostile to their rule. But this story is even more personal to Maturin. For Maturin was writing *Melmoth the Wanderer* to keep his family from poverty and starvation. His fear was that if Ireland and its increasingly politicised Catholic middle-class were to allow Rome to intervene in a political level, as had occurred in Spain, then Maturin and his family may have been left to starve.

4.2 Ireland

The tortuous and protracted way in which the novel was composed and published raises questions about the structure of the novel and about how much of it was intentionally crafted by Maturin. Was the novel envisaged by Maturin as it was published, as a series of stories within stories? Or had it been intended as a collection of separate tales, with one beginning as the other ended? Sharon Ragaz argues that the finished novel that was published in 1820 is perhaps better viewed as a collaboration between Maturin and his publishers and printers. Ragaz's article, "Maturin, Archibald Constable, and the Publication of *Melmoth the Wanderer*", is a detailed account of the entire saga. For Ragaz, the "text of Melmoth as we have it is the product of an extended process of collaboration, negotiation, procrastination and accident, complicated on either side by each participant's evolving sense of professional standing, reputation and obligation at a time when the literary marketplace was rapidly changing" (372). She does not argue, however, that an analysis of the novel's structure should be ignored in critical discussions of the text but that "such analysis must be informed by knowledge of the novel's precarious, protracted and difficult making" (373). Most critical discussions of the novel deal with the issue of structure in some way. Jack Null argues that the disjointed and fragmented structure gives the novel a "psychological intensity" not found in novels that employ similar Gothic tropes to *Melmoth* (137).

Other critics have interpreted the structure in terms of Irish issues, arguing that Maturin designed the structure in order to confuse and disorient readers and in order to mirror his own anxieties as a member of the minority Anglo-Irish Protestant population in Ireland threatened by increasingly politicised Catholic population who had, only two decades previously, erupted into bloody rebellion (Morin 129). Taking into account the circumstances surrounding the composition of the novel, and the fact that the structure

may have been an unintended side-effect of its publication, this interpretation of the structure may be misguided. Morin argues that, despite the fact that the structure of the novel may not have been intended by Maturin, the novel is nonetheless intensely preoccupied with Irish issues. For Morin, the novel is “perpetually *possessed* by contemporary Ireland and its troubled history” (129). Morin’s argument for *Melmoth*’s status as an Irish novel rests with the way that Maturin inserts Ireland into the novel “paratextually”, that is, through the novel’s footnotes (129).

Two of the most obvious instances where Irish issues seep through in the novel’s footnotes occur close together in Monçada’s tale. These two instances, which Maturin ties to Irish events through his footnotes, are brought on by a scene of mob violence in the main narrative. For Luke Gibbons, this scene is evidence of Maturin’s “lethal combination of mob violence and an Irish setting” (53). Monçada, having escaped the Inquisition and now hiding in the house of a Jewish family in Madrid, witnesses a procession led by the Inquisition through the streets of Madrid. During the course of this, a man whom the crowd blames for the fire that allowed Monçada to escape, is ripped from the procession against the cries of those holy men. This man, a parricide, who initially helped Monçada to escape from the monastery only to deceive him, is torn apart and brutally executed by the mob. The body of the man is rendered an unrecognisable lump of flesh and the late-arriving cavalry, when enquiring about the man’s whereabouts, are told he is “[b]eneath your horse’s feet”. At this point, Maturin interjects into the main narrative through an explanatory footnote where he links this fictional murder to the murder of “the unfortunate Mr. Hamilton” in Donegal in 1797. It was following this man’s violent death that a similar response was given to an officer enquiring what the heap of mud was at his horse’s feet: “The man you came for”.

Gibbons points out that this man, the Rev Dr William Hamilton, was Rector and Resident Magistrate at Fanaid in Donegal. His death came as a result of his detention of some of the local leaders of the United Irishmen. He was succeeded in his role by Maturin's brother, the Rev Hugh Maturin. Not content with a single reference to Irish events, Maturin makes another paratextual intervention linking this fictional episode of mob violence to Irish events. Monçada, upon gazing at this dreadful scene unfolding below him, is driven close to madness and it is here that Maturin, in a footnote, likens this response to the response of a shoemaker in Ireland who, during Emmet's insurrection in Dublin 1803, witnessed the violent murder of Lord Kilwarden and was so shocked and disturbed by what he saw that he became "an idiot for life". Julia M. Wright claims it is significant that, through his footnotes, Maturin does not tie his depiction of mob violence to similar anti-Catholic depictions in Gothic writing, such as Lewis' *The Monk*, but instead ties it to real Irish events. Wright argues that Maturin's footnotes "root the Gothic tale in an Irish reality" and that he recognises Ireland to be the ideal Gothic setting (166).

Despite this, many critics have read *Melmoth the Wanderer* as a novel about Ireland. Eagleton, for example, has argued that Melmoth's selling of his soul can be read as an allegory of "forcible settlement and expulsion" (190). Melmoth's transgression is contemporary with Cromwell's conquest and this means that Melmoth's task of "preying upon the dispossessed" can be seen as "a nightmarish image of the relations between the Ascendency and the people" (190). Morin too recognises *Melmoth the Wanderer* as novel concerned with history and with Irish history in particular. She argues that though *Melmoth the Wanderer* appears on the surface not to be a novel overly concerned with Irish issues it is, in fact, haunted by Ireland and by Irish issues

(131). Lew also ties *Melmoth* to Ireland and notes that it is a not solely historical but also a political allegory; he argues that while it is “literally about Civil War England, Spain under the Inquisition, and life on an Indian island”, it is also “about contemporary Ireland” (175).

Maturin therefore is part of a small but influential group of Protestant Anglo-Irish writers who wrote popular works of fiction in the Gothic mode, suggesting a link between the position of the Anglo-Irish population and the Gothic mode of representation. This line of authors stretches from Maturin to Sheridan LeFanu to the works of Oscar Wilde and Bram Stoker. Wilde was indeed a great-nephew of Maturin. This Protestant Gothic is, according to Eagleton, “the political unconscious of Anglo-Irish society, the place where its fears and fantasies most definitely emerge” (187). Eagleton uses the term “political unconscious”, originally popularised by Frederic Jameson, to highlight the potential for allegory in *Melmoth the Wanderer* and in Gothic literature generally. For Eagleton, a political unconscious is the imaginary subtext of our real lives, “our everyday social practices and relations” (187). Within this imaginary subtext, all of our waking social interactions are warped by “their implicit violence, longing, and anxiety” and all that society has repressed is brought to light in a “monstrously distorted” way (187). This unconscious is political because it is the mirror of the collective conscious of a society, not simply of an individual. But whereas the political conscious of a society has jettisoned “all the guilt, loathing, unnameable desire” in order for it to be able to operate effectively, the political unconscious is where all of these things come to reside (188). And it is in the “collective phenomenon” of literature where this political unconscious seeps through and finds expression. Gothic literature returns this political unconscious to us in its purest and most terrifying form,

revealing to us the transgressions, the exploitations, the oppression, that makes our society and our shared, collective conscious possible. And, as Eagleton writes, the turbulent political unconscious of nineteenth-century Ireland signalled a society that was “ripe for Gothic treatment” (188). For Protestant writers, in particular, the Gothic appeared as the genre most readily equipped to represent “the decaying gentry in their crumbling houses, isolated and sinisterly eccentric, haunted by the sins of the past” (188). The Gothic is the “nightmare of the besieged and reviled” (189) and the Anglo-Irish were indeed both “besieged”, in that they were surrounded by a hostile Catholic population, and “reviled”, because they had trespassed, they had transgressed, they were the usurpers. The tales in *Melmoth the Wanderer* bear this out. The Protestant Walbergs are besieged by the Catholic population once they move to Spain and are cheated of their inheritance. Monçada is forced into a Catholic monastery to pay for the sins of his parents and is tortured by the monks there. Indeed, Monçada cannot leave because society dictates that he cannot, he must stay to protect the honour of his family, having been born out of wedlock, while his brother enjoys the fruits of a blessed existence. Stanton is literally placed in a madhouse, again having been deceived by a family member. This madhouse contains but one person “who was not mad from politics, religion, ebriety, or some perverted passion” (Ch. 3) and, as Eagleton astutely comments, “it would not be difficult to give a national name to this gloomy asylum” (191). The paradox of the Anglo-Irish as the besieged and persecuted is that they themselves are persecutors. They are the ones in power in Ireland so why should they also be framed as the oppressed? *Melmoth the Wanderer*, for Eagleton, is an allegory of this strange condition where the persecutor and the persecuted hold shifting identities. The Anglo-Irish Ascendency feared the masses because the increasing

likelihood of emancipation for Catholics would mean that the minority Protestant population would truly become besieged. And a mob ruled by Rome was the greatest Ascendancy fear of all.

Another line of argument is that Maturin's critique of Catholicism could never have occurred in a novel set primarily in Ireland because it was not Irish Catholics that he feared but an Catholic Irish nation under the influence of Rome. Others have argued, however, that *Melmoth the Wanderer* is an example of "imperial Gothic" where Maturin's apparent attack on the Catholic Church is actually an attack on empire in general and on British rule in Ireland. Massimiliano Demata, for example, argues that through *Melmoth the Wanderer* we can read Maturin's "anxiety over the colonial enterprise" (27). Monçada is conquered and oppressed by the Catholic Church, which itself was an empire and "an instrument of colonization which converted the colonized" (29). Demata argues that Maturin could not offer a sustained and explicit critique of British rule in Ireland because of his precarious position in the Church of Ireland but that, in the "Tale of the Spaniard", he is implicitly critiquing that rule. For Demata, Maturin believed in an Irish identity separate from Britain which had been threatened by the Act of Union. The Union, for Maturin, was not one of equals and Demata believes that Maturin resented British hegemony for its eclipsing of Irish identity.

Melmoth the Wanderer's confused, fragmented, and episodic structure could also be read as a symptom of the "crisis of representation" that affected the Irish novel in the nineteenth century. For Jacqueline Belanger, one of the most prominent features of the Irish novel in the nineteenth-century is its "perceived inability (or unwillingness) to 'interweave' successfully the generic requirements of the novel with the realities of

religion and politics in nineteenth-century Ireland” (“Introduction” 12). Much of the work of critics in the past two decades has involved a revised approach to the study of the Irish novel in the nineteenth century, trying to rescue the Irish novel in this period from its traditional characterisation as “inferior” to the British and European novel. The nineteenth-century Irish novel’s fragmentary and episodic nature, and its perceived inadequacy in relation to the norms established by English writers, were seen as failures of the novel genre rather than as variations of the genre or as reflections of the “alternative realities” of colonial Ireland.

Lloyd, in his seminal essay on violence and the Irish novel, attempts to account for this crisis in representation in the Irish novel and for the “perceived inadequacy of the Irish novel in relation to its British and European counterparts” (128). Lloyd argues not that the Irish novel was inferior to British and European novels but that the Irish novel is another mode of representation and of narrative that is connected to the representation of the history of classes of people who cannot be assimilated into dominant historical narrative. These social groups that lie outside of the narrative of the dominant history are Lloyd terms “subaltern”, a concept he borrows from Antonio Gramsci. The history of these subaltern groups does not conform to a coherent narrative because they have not been unified in the creation of a state. This is because subaltern history is only completed and unified once the subaltern group takes over or becomes a state. Lloyd argues, therefore, that for the State and dominant history the subaltern must always be represented as violent and must be represented as so for two reasons. Firstly, that which cannot be assimilated into the State must always be understood as disruptive and existing outside of the law. Secondly, the history of the state requires the existence of groups who can be represented as violent and barbarous so that “the history of

domination and criminalization appear as a legitimate process of civilization and the triumph of law” (127). In this way, according to Lloyd, the subaltern has a “double history” (127). They have their own fragmented history and “play out their own discrete formations and traditions” but they are also part of the history of States where they are “occluded by their difference from dominant narratives and forms and by those forms themselves” (127). This, for Lloyd, means that the perceived inadequacy of the Irish novel in the early-nineteenth century can be accounted for through the violent struggle of the subaltern movements in Ireland against the dominant ruling classes. But, for Lloyd, the matter is not merely literary but is instead about *representation* in general. For if the Irish are repeatedly stereotyped as “violent”, as they have been by dominant history, then this obstructs their ability for self-representation. “Official history”, writes Lloyd, “cannot address the possibility that both the persistence and the forms of violence in Irish history constitute not simply barbarous aberrations but a continuing contestation of a colonial civil society’s modes of domination *and representation*” (italics in original) (128).

Wright argues that the kind of narrative disruption that Lloyd is linking with the Irish novel is actually most commonly identified with the gothic genre. Wright cites a contemporary review of *Melmoth the Wanderer* that lambasts Maturin and his Gothic mode of writing. She suggests that the language used in this review is similar to the language applied to the “unruly Irish” (147). The reviewer here, according to Wright, “nationalises” the Gothic and laments Maturin’s failure to adopt a more “English” mode of writing (148). Wright goes on to argue that the reviewer is criticising Maturin for the very features that allow the Anglo-Irish gothic to succeed in formalist terms, that is through “fragmented and episodic narrative structure, the staging of social crises

without offering a meaningful resolution, and the evasion of ‘official history’ through narrative contestation” (147). Such features are also the ones that Lloyd associates with the Irish novel and its perceived failure. The gothic, as a literary genre, attempts to introduce, through allegorical and otherwise encoded language, truths suppressed by dominant culture and history and, Wright argues, this highlights the potential for the gothic genre to address the crisis of representation in Irish writing (148).

For Eagleton, a realist novel tradition failed to establish itself in Ireland because it lacked “certain cultural preconditions” (147). The realist novel offers an image of structured and stable society, one in which individual lives are integrated as part of the whole. But, as Eagleton claims, the disrupted social conditions in Ireland precluded an image of wholeness and stability from being formed in novelistic representations that emerged from that society. Classical realism depends on the assumption that “the world is story-shaped - that there is a well-formed narrative implicit in reality itself, which it is the task of realism to represent” (Eagleton 147). Eagleton argues that Irish history is not easily read as a tale of progress and is not easily subsumed into the novel genre, which he equates with classical realism. Instead, the Irish novel in this period is “typically recursive and diffuse, launching one arbitrary narrative only to abort it for some other equally gratuitous tale, running several storylines simultaneously, ringing pedantically ingenious variations on the same few plot elements” (147). In *Melmoth the Wanderer*, this is exactly the view of history that Maturin is attempting to depict. History in the novel is “a subject, but not a process” (Sage, “Irish Gothic” 139).

5.3 Gothic

In the preface to the novel, Maturin positions *Melmoth the Wanderer* as a religious text. It was inspired, he writes, by a passage in one of his sermons. In this sermon, Maturin declares that there exists not one person who would give up their soul in return for relief from their earthly sufferings. Maturin's claim is universal, making no exception for religious denomination. Nobody, in Maturin's eyes, would take this offer: not Protestant, not Muslim, not Catholic. But the positive universality of his preface gives way in the novel to negative attacks on religion, on Catholicism most notably. Maturin's attacks on Catholicism are generic, however. They mostly take the form of Gothic tropes from what is usually called the Radcliffean school of horror: gloomy monasteries, sadistic monks, overzealous priests, crumbling ruins. Maturin, also in his preface, writes that the passages concerning Monçada's time in the monastery were "censured by a friend" ("Preface") for being too similar to the work of Radcliffe. But Maturin replies that his depiction of life in a monastery was far truer to the horrors of life in such places.

There are two accounts of *Melmoth the Wanderer's* status as a Gothic novel, on grounds not connected to its Irish provenance. Baldick argues that both of these accounts are potentially misleading. The first account places the novel as the last, and greatest, Gothic novel "in the line from Walpole through Radcliffe and Lewis" (ix). The problem with this account, according to Baldick, is that the Gothic mode of writing continued to trundle on well after *Melmoth*, being most notably revived in the work of Poe. Gothic writing did not end with Maturin and it has continuously haunted Western literature. The alternative account hails Maturin as independent from the Radcliffe line and as an antecedent of Dostoevsky and Kafka. Within this account, Maturin is "a psychological novelist rather than a reteller of ghoulish gimmicks" (ix). Baldick does

not see these two traditions, between which *Melmoth* so often floats, as incompatible. *Melmoth* is both a psychological novel and one that contains the standard trappings of Gothic fare and Baldick points to David Punter's survey of Gothic writing, *The Literature of Terror*, which offers a more helpful delineation of the varieties of Gothic fiction and which allows us to reconcile the "contending versions of *Melmoth's* Gothic status" (ix). In Punter's survey, he points out that "although Gothic fiction may be most easily recognised by its paraphernalia of props and settings, its distinctive animating principle is a psychological interest in states of trepidation, dread, panic, revulsion, claustrophobia, and paranoia" (Baldick, ix). Baldick argues that such a description leads to the recognition of "another cycle of novels" that are not "full-dress Gothic" but that do share some important features with traditional and celebrated Gothic works. This other cycle, according to Baldick, includes *Melmoth the Wanderer*; Mary Shelley's *Frankenstein* (1818), *Caleb Williams* (1794) and *St Leon* (1799) by Shelley's father, William Godwin, and *Private Memoirs and Confessions of a Justified Sinner* (1824) by James Hogg. This group of novels, says Baldick, is not as full-on Gothic as Radcliffean fictions and "tend to rely less on the evocation of atmosphere from a monastic or castellar setting than on a fabulous principle of transgression, usually involving the Faustian acquisition of forbidden knowledge" (x).

It is with this "Godwinian" or psychological group of Gothic novels that *Melmoth* is most strongly associated. Baldick argues that this may go some of the way to explaining the novel's structure. Whereas Radcliffe's romances are narrated by a "pious and rational" omniscience, the narratives of these "Godwinian novels" tend to favour first-person testimony which lead us "back through 'flashback' recollections and embedded tales-within-tales to a realm of inward disturbance not commonly accessible

to the more placid conventions of third-person narration” (x). Baldick notices a trend here and postulates that the myth of transgression requires a particular narrative strategy where the actual horror of the story comes to us through second-hand report and testimony. While *Melmoth's* narrative structure remains “freakishly irregular” by the standards of other prominent Gothic novels in this style, it still can be subsumed under this “law of Gothic design” (x).

It is from Godwin that Maturin inherits the theme of individualism present in *Melmoth the Wanderer*. Individualism champions the individual over the institution and places an emphasis on the importance of self-reliance and the danger of the influence of external human systems. Maggie Kilgour defines Godwin’s work as the antithesis of Edmund Burke’s who, in his *Reflections on the Revolution in France*, set out to defend the “old systems of gothic tyranny” (Kilgour 47). Godwin believed such systems encouraged superstition in the masses, which the ruling classes then exploited in order to oppress. He was an ardent proponent of individualism and condemned all external systems as oppressors of a person’s independence and of their unique identity. Godwin’s *Enquiry Concerning Political Justice* is a response to Burke’s *Reflections* and, according to Kilgour, it positions Godwin as a descendent of seventeenth-century radical thought. Godwin’s ideology of individualism was a political one and he believed that government institutions were an evil influence that denied individual identity.

Maturin’s own brand of individualism in *Melmoth the Wanderer* manifests itself in an attack on the Roman Catholic church and other organised religions. Most likely as a result of his Calvinist upbringing, Maturin was highly critical of religious institutions that would seek to step in as intermediaries between the individual and God. Maturin’s great fear was an increased influence of Catholicism in Ireland, which at the time was

less than a decade away from Catholic emancipation. In *Melmoth the Wanderer*, Maturin's criticisms of Catholicism are established as attacks on the system and not on the individual. He is highly critical of institutions such as monasteries and the Inquisition but less critical of Catholic priests, such as Fra Jose in the "Tale of the Indians" and the good priest in the "Tale of Guzman's Family". Maturin is similar to Godwin in that they were both heavily influenced by a Calvinist upbringing and both were influenced by the works of Rousseau, which, in Maturin's case, can most notably be seen in the story of Immalee/Isidora in *Melmoth the Wanderer*.

Immalee is a young Spanish girl who, as a very young child and following a shipwreck of which she is the only survivor, becomes the sole inhabitant of an island in the Indian Ocean. Immalee's tale is, in some ways, the opposite of Monçada's. Monçada moves from a claustrophobic religious society to apparent freedom at the expense of all bonds of fellowship. Immalee has no ties to the human world and is literally displaced from all human connection. She moves from this state, following numerous encounters on the island with Melmoth, back to the conditions of her birth and is reclaimed by her family and by her religion where she must learn to bring her expressions of individual belief in line with the strict religious beliefs of that family and of her country.

Melmoth, of course, finds his way to the island upon which Immalee has lived for the vast majority of her 17 years. Melmoth, in the guise of "the stranger", becomes Immalee's teacher and introduces her to the "world that thinks" in a predictably skewed and cynical light. It is helpful to remind ourselves here of what Maturin claims his purpose was in writing *Melmoth the Wanderer*. In his preface he states that the premise of the novel was inspired by one of his own sermons where he posited that not a single

person would ever give up the prospect of divine reward for earthly pleasures. That is, no person would ever submit their eternal soul in exchange for temporary relief, no matter what their hardship. Considered in this light, Immalee's tale can be read as Maturin's way of arguing for a natural belief in the existence and importance of our souls, and this in our unique identities. Even if we were to be shaped by malignant forces, such as Melmoth, into believing certain blasphemies or into accepting a certain worldview, we would still have an innate knowledge of the vitality of our souls and of the importance of our individuality. The analogy with religion here is perhaps an obvious one: Maturin is attempting to show that, even despite the corruptive influence of violent and immoral systems of belief, we can still emerge with our souls intact and we can innately understand the importance of a personal, and unmediated, relationship with God. Again, this is Maturin framing his argument as a critique of systems of belief and not of individual belief. Maturin is influenced here by his Calvinist upbringing. According to Sage, the Calvinist tradition is "an important presence in the history of fiction, because, as the most extreme wing of Reformation thought, it assumes a radically internalized account of the soul's relation to God" ("Introduction" xxiii).

Immalee is eventually rescued from the island where she is returned to her family, her country, and her religion, and becomes Isidora, the Spanish maiden. Melmoth's instruction has skewed her person and she does not take to Catholicism in the way that her mother, Donna Clara, and her confessor, Fra Jose, would like. She has bursts of individuality and beliefs bordering on blasphemies. Isidora has also been hugely affected by the natural life she lived on the island and suffers melancholic dreams of her life there. She has little she can relate to in this human system and her

terms of reference for any belief system are grounded in the natural world. Isidora is also madly in love with Melmoth. They meet again in Spain and are soon wed in a clandestine ceremony, performed at night in a ruined monastery by a dead monk.

The story of Isidora/Immalee in the “Tale of the Indians” is Maturin’s attempt to create a character outside of the influence of any human system. Melmoth’s interactions with her are perhaps his infernal, and the passages here are among some of Maturin’s best, fueled by an intensity that could only be borne out of the passion of true belief and, though he hastens to add a footnote declaring the beliefs of Melmoth to be “diametrically opposed to mine”, we are pushed to consider the probability that Maturin was masking his most controversial beliefs behind a literary creation.

On the surface, the tale of Stanton seems an anomaly in Maturin’s novel. It has little in to say about of religious oppression of its protagonist and features no evil monks or gloomy monasteries. Despite this, Stanton still suffers at the hands of a system. Stanton has his autonomy taken away by a member of his family and is placed in a mental institution because of his strange behaviour and his lack of conformity with English society. This appears as a contradiction in Maturin’s writing. Constantly admonishing Melmoth’s Catholic household in the frame narrative for their superstitious beliefs, the first sub-narrative finds a Protestant man imprisoned for his impassioned belief in a satanic spectre. But it is those who imprisoned Stanton who are wrong in this instance for Stanton *is* haunted by an agent of the devil. In the context of individualism, however, there is no contradiction. The household’s superstitious beliefs have been stoked by a system that aims to use these beliefs to subjugate their followers. Stanton’s beliefs come from a personal interaction with Melmoth, beliefs he is then punished for

within a more rational, Protestant system. Maturin's criticism of belief systems like Catholicism can so often be extended to all organised religion, including his own belief system, that he was often criticized in contemporary reviews for blasphemy. In a way, we should not be surprised, for Maturin was an outsider in his own religion and was denied advancement in the church as a result of his beliefs. Lougy states that throughout his life Maturin became progressively more alienated from all organized religion because "he felt that any religion that tries to impose its will or creed upon others is in danger of transforming what should be an order of joy and love into an order of suffering and hatred" (80). Maturin often walked a fine line between his role as a curate and the expression of his beliefs through his literary work.

5. Conclusion

Maturin, through *Melmoth the Wanderer*, attempts to depict an Ireland that has been denied progress. Irish history, in Maturin's time, was disputed. Religion too, in Maturin's estimation, held Ireland back. His Calvinist mode of Gothic writing, similar to the work of Godwin, involved critiques of systems and institutions, such as the Catholic Church, that placed themselves in between an individual and God. In his sermons we can see how the possibility of an Irish nation, however much he would have liked to have seen one, frightened him because of the likelihood that it would be a Catholic nation, ruled by Rome, where the mob ruled and individual liberty was threatened. In the end, there is no resolution to *Melmoth the Wanderer*. The novel, like Irish history at the time, could not conclude. Instead, it launches story after story without resolution until the end of the final volume when the stories begin to collapse in

frustration, still never fully resolving themselves, but instead pointing to a potential resolution in the frame narrative which itself is snatched away in its very final moments. Maturin had more to say about his Wanderer but he never had the chance. He was forced by his publisher, not unfairly given the circumstances, to finish his story so that it would neatly fill four volumes. The sequel suggested by Maturin would not be entertained by his publisher at all. The story of the Wanderer was to remain unresolved. It is the Irish story in *Melmoth the Wanderer* that is at the root of the overall failure of resolution in the novel. All the other tales, the British tales of Stanton and of Elinor, the Spanish tales of Monçada and the Walbergs, the Indian tale of Immalee, depend on the frame narrative, the Irish tale, for resolution. It is in this story that the Wanderer reaches the end of his 150 years of life but we never see his end. Instead, Monçada and the young John Melmoth are left speechless and simply return to the Melmoth house, unsure of what they have just witnessed. Do the characters of the other tales receive justice in the downfall of the one who tormented them or has Melmoth bargained his way to another extension on his life? They, nor we, will ever know.

Appendix B

Topic Modelling

This appendix contains four brief sections that show how topic modelling can be used to gain insight into *Melmoth the Wanderer*. The first section describes and interprets a topic model created solely from the text of *Melmoth the Wanderer*. For this model, the text was divided into its constituent tales and a two-dimensional topic model was then generated from this data. The second section is a short paragraph that interprets a single topic, the topic of ‘time’, that was extracted from a wider topic model generated from a corpus of 60 Irish novels contemporary to *Melmoth the Wanderer*. The third section interprets another topic extracted from the same topic model of 60 Irish novels: the topic of ‘Ireland’. The final section describes a topic model of a small corpus of gothic novels and shows how *Melmoth the Wanderer* fits in with the wider genre of gothic literature. Such topic modelling can be used as part of the edition to offer readers a unique way of viewing the wider literary context of *Melmoth the Wanderer*. The visualisations generated from these models and included here as images can offer readers a quick yet informative glance at *Melmoth the Wanderer*’s place in, for example, Irish writing or gothic literature. These images can also encourage readers to investigate the wider world of writing that surrounds the novel by encouraging them to think of the novel not in isolation but as part of a greater tradition of Irish or gothic writing. Including these images as part of the digital edition means that readers can enlarge and navigate around these images in order to investigate them in their entirety. It also affords the user an opportunity to take a brief respite from reading about the context of the novel and instead allows them to *see* the context in order to grasp it more fully.

1. Topic Modelling the tales of *Melmoth the Wanderer*

The novel veers between two modes of writing: the gothic and the romantic. “The Tale of the Spaniard” is primarily gothic, for example, while “The Lover’s Tale” is more romantic. The process of topic modelling the text can help us see which tales fall into which mode of writing. Topic modelling is a process whereby a corpus of texts (the tales of the novel in this case) is inputted into a program which generates topics (or themes) based on the words used in the texts. If a group of words occurs together frequently through the corpus then the program will return those group of words as a topic. It is up to us to decide on a label for those groups of words. By setting MALLET, a program that produces topic models, to return the two topics that are most common throughout the novel we can see the tales fall into these two groups of “primarily gothic” and “primarily romantic”. Table 5.1 shows the model’s data. Again, each topic comprises a list of words that occur together frequently throughout the novel. These lists of words need to be interpreted by the user, this cannot be done by the computer. Therefore, the interpretation of these topics as “gothic” and “romantic” is open for debate.

Romanticism is a genre of writing that privileges strong emotion and feeling.

The topic labelled as romantic has romantic connotations due to the presence of the

Topic	Words	Weight
Gothic	father moment god life man time made felt day power door family long till appeared mother hand superior voice	2.66373
Romantic	melmoth isidora heart stranger love elinor immalee light family amid john eyes priest spoke daughter night human feeling donna	2.45623

Table 5.1. Two-dimensional topic model of the tales in *Melmoth the Wanderer*, generated by MALLET.

words “heart”, “love”, “light”, and “feeling”. These words are often associated with positive emotions. The word “eyes” too can suggest a romantic mode of writing. Characters can be described as having powerful feelings towards one another through the meeting and locking together of eyes. The word “priest” suggests marriage, a popular preoccupation of romantic novels from this period, such as in the works of Lady Morgan whose national tales end in symbolic marriages. The presence of the word “human” indicates that this topic is about our own world rather than the supernatural world of gothic writing.

Gothic writing is a form of romanticism but in contrast this form of writing tends towards more negative emotions of fear, horror, and terror. Gothic writing is often

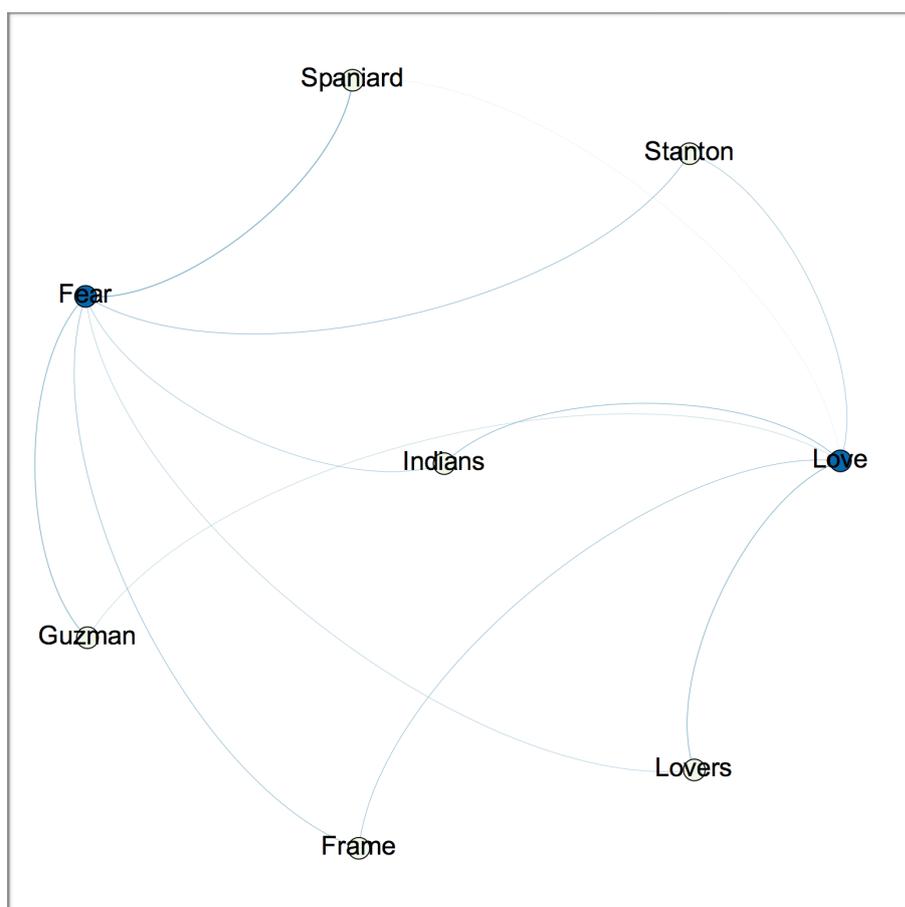


Figure 5.1. A Gephi-generated visualisation of a two-dimensional topic model of the tales in *Melmoth the Wanderer*

preoccupied with questions of power, authority, mortality, religion, and the supernatural; the presence of the terms “father”, “god”, “life”, “power”, “time”, and “superior” in the first topic do suggest these Gothic preoccupations. Further, the word “door” has gothic connotations in that that horrors in gothic writing can be kept hidden behind doors and can appear through doors. A closed door in gothic writing generates feelings of dread through playing on the reader’s fear of what lies beyond it, a fear of the unknown. “Moment” too can be read as a term related to the gothic. Sudden changes in characters fortunes from the positive to the negative can evoke fear in the reader, such as the moment when the Walberg’s are informed that they are not entitled to the money from Guzman’s will and now face to prospect of starving to death or the many moments that Monçada’s fortune changes: thinking he is about to be freed from the monastery on legal grounds only to see his plea suddenly fail, escaping from the monastery with the help of his brother only to see his brother being killed moments later, or finding refuge in a house only to have it raided by the Inquisition. The word “voice” in this topic also suggests a gothic mode of writing. Hearing voices can mean that a character has been driven mad or that they are being haunted by something otherworldly or supernatural.

That is not to say that each tale strictly adheres to one of these topics but that one of these topics is more common in each of the tales than the other. Interestingly, the word “melmoth” is the most common word in the romantic topic; this draws our attention to the fact that Melmoth the Wanderer appears infrequently in the more gothic tales, such as the “Tale of the Spaniard” and “The Tale of Guzman’s Family”, where instead he appears towards their end in order to tempt the tales’ protagonists. This should also draw our attention to the fact that Melmoth himself is not the cause of the gothic sufferings of the characters of these tales, who are instead tormented by other

people. The topic model's data can also be used to generate visualisations of the model. Figure 5.1 is a Gephi-generated visualisation of this topic model and offers a better view of how the tales arrange themselves around these two topics. The "fear" side represents the gothic and the "love" side represents the romantic. "The Tale of the Indians" lies between the two topics and suggests the centrality of this tale to the rest of the novel. This is due to both the presence of the character of Isidora - who is very much a romantic creation tied to the world of nature, feeling, and emotion - and the increased presence of the character of Melmoth, who up until this tale has featured as a minor presence in the tales and who is responsible for the more gothic elements of this tale. The "Tale of the Spaniard" and the "Tale of Guzman's Family" gravitate to the "fear" side of the network due to the heavy presence of gothic tropes within these tales: evil monks and the terrors of monastic life in the case of the "Tale of the Spaniard" and treacherous priests and the constant threat of death by starvation in the case of the "Tale of Guzman's Family". This model indicates that "The Lover's Tale" is one of the more romantic tales in the novel. This comes as no surprise given the content of the tale. What is more surprising, however, is how heavily Stanton's tale is associated with the romantic topic. Stanton's story appears to be a gothic one: Stanton is imprisoned in a madhouse and tempted by the Wanderer. But we should also remind ourselves that Stanton's tale is also partly the story of a Spanish wedding. Further, this model draws our attention to how dissimilar Stanton's story is to the two most traditionally gothic tales: the Spaniard's tale and Guzman's tale. As mentioned above, these two tales rely on traditional gothic tropes with depictions of evil Catholics. Stanton, however, is not persecuted for religious reasons and at the beginning of the tale he describes how he has found himself welcome in Catholic households in Spain and has engaged in discussion

and debate with some of the Spanish population. Stanton's torment comes from being tricked into a madhouse when he is fully sane and is not the result of religious persecution. Another potential reason why Stanton's tale gravitates towards the romantic topic is because of his obsession with finding Melmoth the Wanderer. This obsession translates into a romantic passion on occasion, similar to Elinor's love for John Sandal and Melmoth's for Isidora, which perhaps indicates why this tale should be associated with the romantic topic.

2. Topic Modelling and Time

The topic of time was one that preoccupied Irish writers during this period. Figure 5.5 shows a network visualisation topic model of 60 Irish novels from this period. Topic 12 is at the centre of this second model; this topic is related to time, place, and distance. This indicates that the topics of time, place, and distance were to be found in most Irish novels at this time. The two most prominent words in this topic are "time" and "length" suggesting that writers were concerned with the passing of time or the amount of time taken to get things done. It indicates a preoccupation with the past. This topic model also tells us that the words "time" and "length" in these novels are often accompanied by the word "place", telling us that these novels often wrote about time passing in relation to places or locations. Tellingly, these words are also often accompanied by the word "stranger" and "appearance" suggesting that something unknown is suddenly presenting itself across time and in different places. Topic 19 accompanies topic 12 at the centre of this network and, again, the most prominent word in this topic is "time" further emphasising just how much Irish writers during this period mentioned time in their novels.

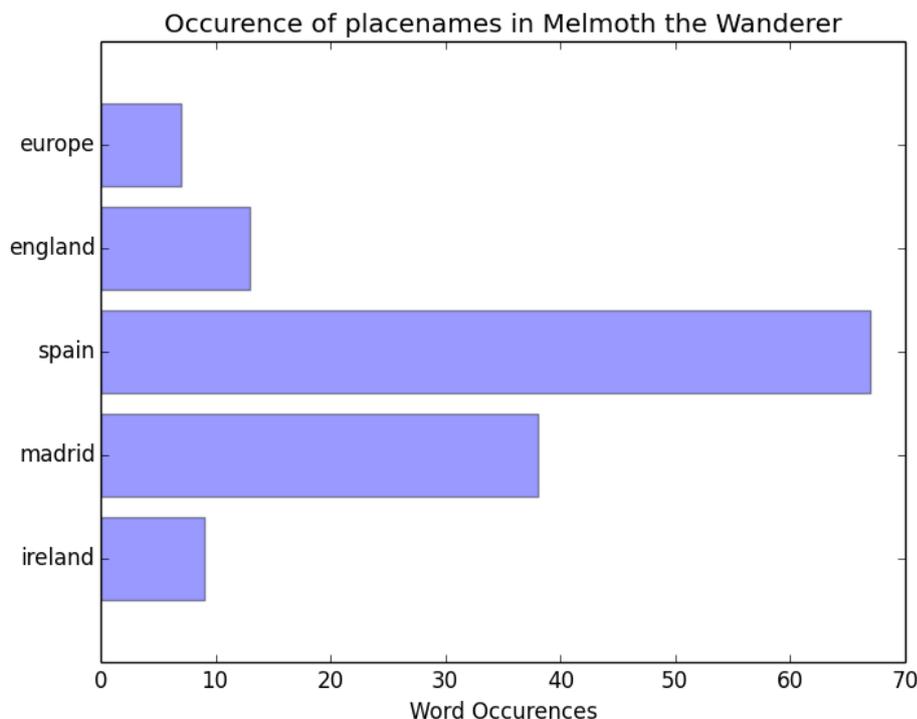


Figure 5.3. Occurrences of place names in *Melmoth the Wanderer*.

sharing a common identity. Looking at this model's data in table 5.2 we can see the terms that define this topic; the topic of Ireland is represented in topic 6. The proximity within the corpus of the words "ireland" and "irish" to the other words in this list indicate the way that Ireland is described in these texts. "Country" and "people" imply that Ireland was both a country and a people: both "the country of Ireland" and "the Irish people". The topic of Ireland is also associated with the word "english". No surprises here. The Irish were often described in opposition to the English and Englishness. In this sense, Ireland was often described as something other and mystical and we can see this through the inclusion of words such as "soul", "spirit", and "ancient". The words "Catholic" and "Protestant" are notably absent but the word "church" can be interpreted as a cipher for these words, or at least as an indication of the presence of religion within this topic. What other novels are closely associated with this topic? Looking at the visualisation in figure 5.4 we see that Godwin's *Mandeville*,

Topics	Words	Weight
Topic 1	hand heart long eyes made young day thought time good man father heard head make left room half give	2.50815
Topic 2	man great time country men day part young party made place left means found state youth present death make	1.917
Topic 3	subject family attention house sir power friend character felt immediately received captain stranger person made till present situation friends	1.35305
Topic 4	mrs heart sir father feelings delwyn dear mother mind mr hope felt nature life happiness tender good affection castle	0.78172
Topic 5	moment heart night light felt life love till father power voice heard god eyes figure appeared castle wild feel	0.677
Topic 6	irish ireland country people prince human king nature english spirit mr state world soul church ancient called father lord	0.50855

Table 5.2. These are the six most heavily-weighted topics out of 20 generated from a corpus of 60 Irish novels from 1800-1830. This topic model was generated using MALLET. The weight column signifies the relevance of the topic to the overall corpus;

Torrens' *The Victim of Intolerance*, and Morgan's *The Wild Irish Girl* and *The O'Briens and the O'Flaherty's* are closely related.¹ But the topic of Ireland is a minor one in this particular topic model. This means that the novels in this corpus rarely refer to Ireland directly. *Melmoth the Wanderer*, located at the bottom in the purple gothic cluster, is far removed from this topic.

Figure 5.5 shows a network visualisation of a second topic model generated on the same corpus of novels but with different parameters.² In this model, 20 topics were generated from the corpus. *Melmoth the Wanderer* is located at the bottom towards the middle of this visualisation. It is most heavily associated with topic 4, which again is the

¹ For a higher quality version of this image see <http://app.melmoththewanderer.com/ireland-topic-model> or <http://pacific-harbor-2932.herokuapp.com/ireland-topic-model>

² For a higher quality version of this image see <http://app.melmoththewanderer.com/irish20-topic-model> or <http://pacific-harbor-2932.herokuapp.com/irish20-topic-model>

gothic. This time, however, the topic of religion is present in the topic model (topic 3) and *Melmoth the Wanderer* is now also heavily associated with that topic. This visualisation also shows the similarity of *Melmoth the Wanderer* to Moore's *Travels of an Irish Gentleman in Search of a Religion*, which is the most heavily associated novel with the topic of religion in this model. The topic of Ireland is located to the upper right of the main cluster (topic 14). We again see the same novels gravitate towards this topic as we do in the first: *Mandeville*, *The Victim of Intolerance*, *Captain Rock*, and the works of Lady Morgan. Again, *Melmoth the Wanderer* is far removed from this topic which serves to further highlight just how little Ireland is directly mentioned in the novel.

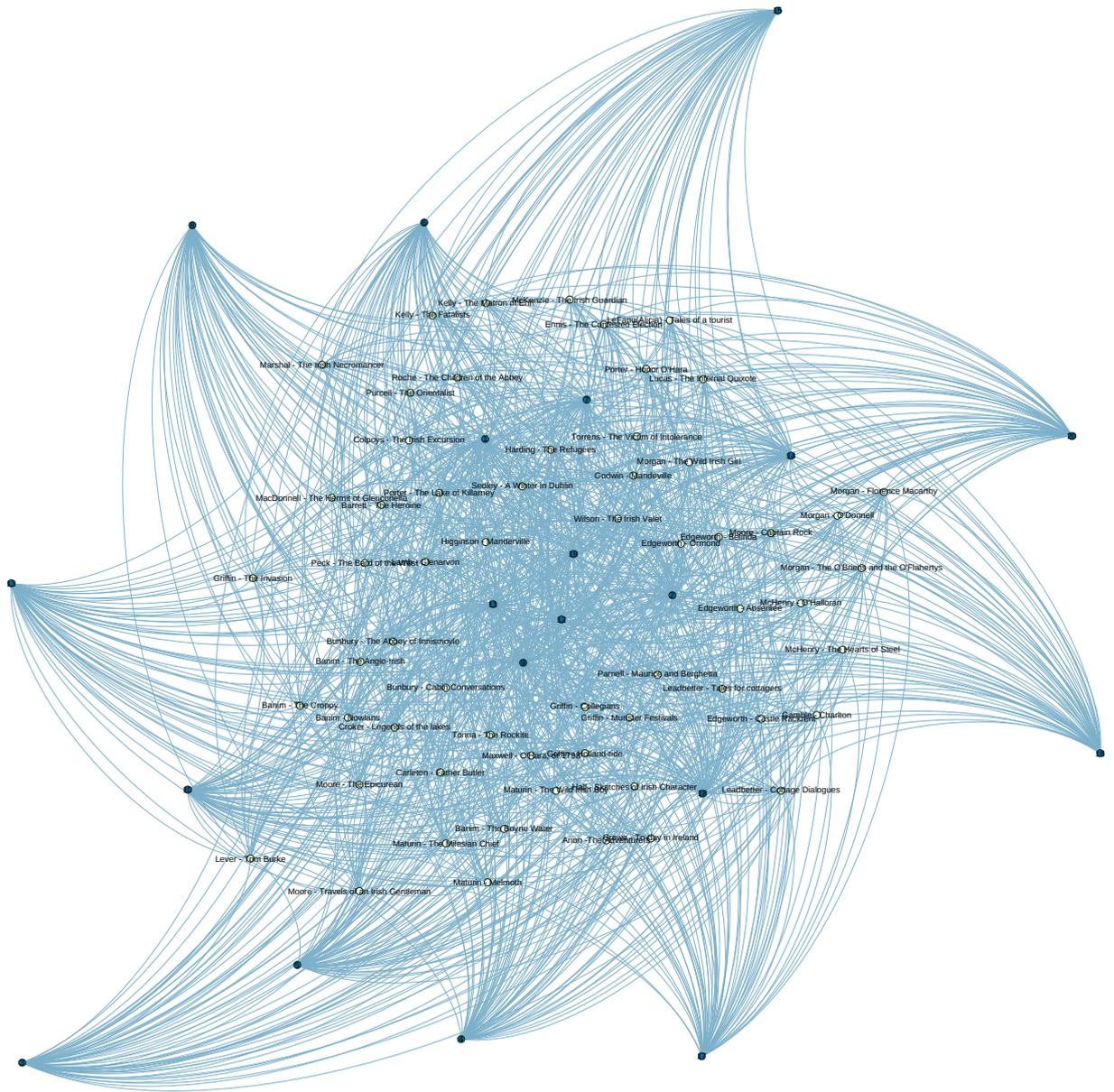


Figure 5.5. A network visualisation of all 20 topics from the second topic

4. Topic Modelling and the Gothic

Generating a two-dimensional topic model from a corpus of gothic novels shows how *Melmoth the Wanderer* is caught between the two poles of Radcliffean gothic and psychological gothic. In this model, there is a clear distinction between Radcliffe's novels and the other gothic novels from the corpus. Of course, we should expect a two-dimensional topic model of a small corpus of novels, nearly half of which are Radcliffe novels, to separate itself in this way, between Radcliffe novels and non-Radcliffe novels. What is interesting about this model, however, is that *Melmoth the Wanderer*, *The Monk*, *Frankenstein*, and *The Castle of Otranto* all fall between the two topics, with a slight pull towards the psychological, highlighting the fact that they all contain significant Radcliffean elements. Figure 5.6 shows a visualisation of the model.

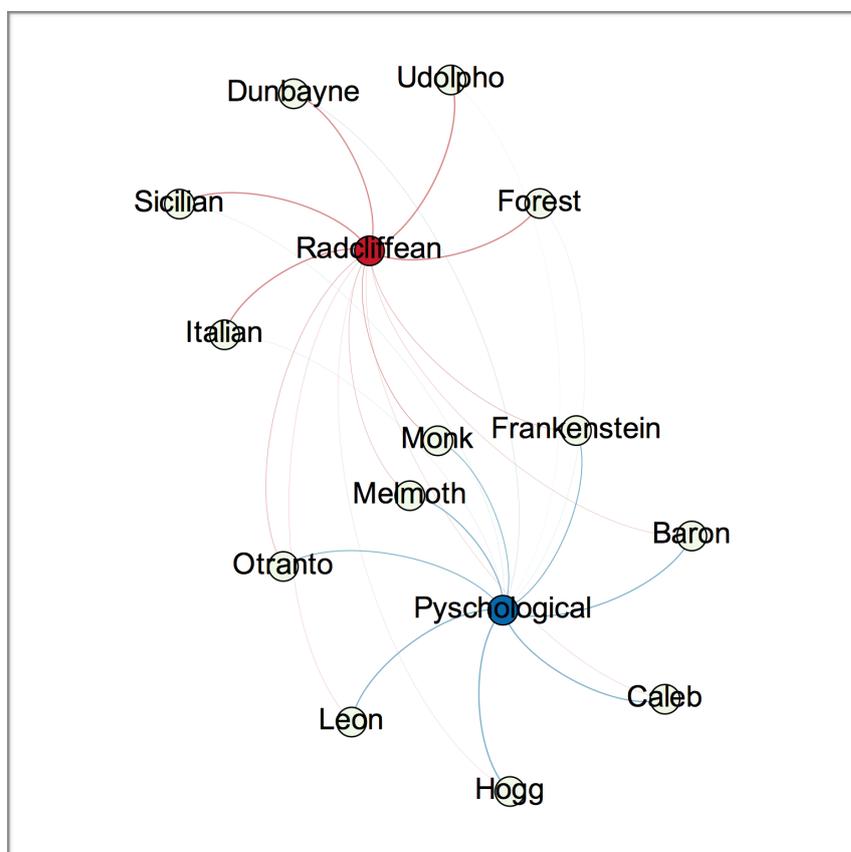


Figure 5.6. A Gephi-generated visualisation of a topic model of a small corpus of Gothic novels.

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