UNIVERSITY OF CALIFORNIA
RIVERSIDE

Ann Radcliffe and the Scientific Imaginary: Education, Observation, and Sensibility

A Dissertation submitted in partial satisfaction
of the requirements for the degree of

Doctor of Philosophy

in

English

by

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September 2017

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Dedication

This dissertation owes so much to the support of my committee: Adriana Craciun, George Haggerty, and Heidi Brayman. Professor Craciun's extensive feedback and constant encouragement made a great impact on my ability to find joy in research and writing. Professor Haggerty's reading groups, and his insights into the less-studied aspects of Gothic literature, inspired me to keep evolving my ideas about Radcliffe—and literature in general. And Professor Brayman's help tracing the arc of early modern science and print history opened up a new path for thinking about material expressions of knowledge. Their encouragement, advice, and support have been invaluable. I am also eternally grateful for the mentorship and friendship of Professor Clorinda Donato, without whom I would have never made it to this Ph.D. program.

Stephen Tabor, the Curator of Early Printed Books at the Huntington Library was a generous mentor in my transition from library school to Ph.D. program, as was Carol Sandberg at Michael Thompson Rare Books. Russell Johnson, the Curator of History and Special Collections at the UCLA Louise M. Darling Biomedical Library, and Teresa Jonson, the assistant for those collections, were especially helpful to me as I began this project. The staff of the Huntington Library made doing research for the first three chapters of this dissertation a complete joy with their patience and knowledge. I was privileged to conduct research at the British Library, as well as La Specola in Florence, the Catacombe dei Cappuccini in Palermo, and the Sansevero Chapel Museum in Naples for my fourth chapter.

None of this would have been possible without Nick and Ari, who kept me fed and reminded me to take breaks during long hours of reading and work. And, of course, my parents, Bob and Karen, who have shared their home with us, and supported me throughout this process. My in-laws, Diane and Phil offered tremendous support as well, along with my grandmother, Helen.

I have received so much love from my friends throughout this process, both in the program and from my life before grad school: Laura, Cat, Deirdre, Shaughn, Roya, Tara, Jen, Stephanie and Bonnie have kept me grounded in the world around me. Flavia, Jennie, and Anne have helped me edit my work, and inspired me to go further, and my DE BAM printing colleagues have showed me the type of community that comes from working side-by-side on a common project.

The world lost too many good people in the years it took me to complete this program. I would especially like to thank my Uncle Jerry for encouraging me to find my own path, and my friend Jon for saving my life once; I'm so sorry I couldn't save yours.

As E.M. Forster writes in *Howards End*: "Only connect." I used to think that scholarship was by necessity solitary work. Now I see that the best work I have done was born of my connections to those around me, along with the connections I have had to make within myself.

ABSTRACT OF THE DISSERTATION

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by

Rebecca Mary Addicks-Salerno

Doctor of Philosophy, Graduate Program in English
University of California, Riverside, September 2017
Dr. Adriana Craciun, Chairperson

This dissertation explores Ann Radcliffe's use of eighteenth-century sciences, and scientific practice within her novels, in a way that presents the relationship between science and the imagination as reciprocal and dialogic in her work. So much Ann Radcliffe scholarship has focused on her use of description and imagination—while ignoring her engagement with natural history and the sciences—that an exploration of these topics seems overdue. From the beginning, Ann Radcliffe's novels were linked with the so-called "terrorist novel writing" that enjoyed tremendous popularity at the turn of the nineteenth century; because of this, it is the supernatural and superstitious elements which have taken center stage, while little critical attention has been paid to the role that Radcliffe's work played in the greater culture of Enlightenment and Romantic literature. To focus on the Gothic elements of Radcliffe's central novels, without acknowledging her engagement with science and the scientific method that came about during the

eighteenth century, would be to miss in part what made her work so relevant to her contemporaries, as well as authors who came after her, such as Mary Shelley.

Starting with the idea of the eighteenth-century novel as a part of a cultural system that linked science and fiction to create a type of scientific fiction, I examine the ways in which Radcliffe referred to, and contributed to, current conversations and conventions about empiricism, sensibility, and knowledge. Through her inclusion of contemporary scientific practice and debate within her novels, ranging from: botany and familiar sciences, to medicine and anatomy, to the pseudo-science of physiognomy, we can begin to see the ways that she both contributed to and questioned the greater landscape of science at the end of the eighteenth century.

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Introduction

Though Mrs. Radcliffe be correct and faithful to the truth of geography and natural history, yet is she often, nay, for the most part, minute even to tedious prolixity in her local descriptions; a weight which would have hung with a deadening power about the neck of a composition not animated by the utmost vigour of imagination.

(From a review in *European Magazine and London Review* 25, June 1794)

The review above contains one of the earliest published acknowledgements of Ann Radcliffe's power to combine imagination with observation and "truth," as defined by the language of natural sciences. However, in the years since its publication, while Ann Radcliffe's "vigour of imagination" has been well established, her faith "to the truth of… natural history" and science seems to still be up for debate. So much Ann Radcliffe scholarship has focused on her use of description and imagination—along with her habit of explaining many of the great mysteries of her novels—while ignoring her engagement with natural history and the sciences, that an exploration of these topics seems overdue. This dissertation project focusses on the ways in which Ann Radcliffe presented eighteenth century science and scientific practice within her novels, placing them in conversation with other forms of enlightenment literature, and scientific debate, in a way that illuminates the "scientific imaginary" of her work.

According to John Bender, "The Eighteenth-Century novel was part of a cultural system that worked to validate Enlightenment canons of knowledge by dynamically linking the realms of science and fiction in the very process of setting them in

opposition."[1] While Bender sees this opposition as a systemic division between the genres of "fact" and "fiction," he acknowledges that although science and fiction were rhetorically placed in opposition, the connections between them remained strong during the long eighteenth century. Starting from this idea of the eighteenth-century novel as a part of a cultural system that linked science and fiction, even as distinctions were being drawn between the genres, I examine the ways in which Radcliffe referred to and contributed to current conversations and conventions about knowledge, through her inclusion of contemporary scientific practice and debate within her novels. It is my belief that by relating Radcliffe's novels to scientific systems, texts, and objects produced and read during the eighteenth century, we can begin to see the ways that she both contributed to and questioned the greater culture of science at the end of the eighteenth century.

From the beginning, Ann Radcliffe's novels were linked with the so-called "terrorist novel writing" that enjoyed tremendous popularity at the turn of the nineteenth century;[2] because of this, it is the supernatural and superstitious elements which have taken center stage, while little critical attention has been paid to the role that Radcliffe's work played in the greater culture of Enlightenment and Romantic literature. Terry Castle

[1] Bender, John. "Enlightenment Fiction and the Scientific Hypothesis." In *Eighteenth-century Genre and Culture: Serious Reflections on Occasional Forms*. Dennis Todd and Cynthia Wall, eds. Newark: University of Delaware Press (2001): 236.

[2] The term, "terrorist novel writing," comes out of an anonymous article in the *Spirit of the Public Journals for 1797*, vol. 1, in which the author bemoans "the fashion to make *terror* the *order of the day*" in popular literature." (See: *Gothic Documents: A sourcebook, 1700-1820*. E.J. Clery and Robert Miles, eds. Manchester: Manchester University Press (2000): 182-184.) The entire entry is worth reading, especially the "recipe" for writing a Gothic novel at the end: "Take- An old castle, half in ruinous. / A long gallery, with a great many doors, some secret ones. / Three murdered bodies, quite fresh. / As many skeletons, in chests and presses. / …. / Noise, whispers, and groans, threescore at least. / Mix them together, in the form of three volumes to be taken at any of the watering places, before going to bed."

recognizes this problem of genre in her introduction to *The Mysteries of Udolpho*; although Castle acknowledges the overwhelming interest in Radcliffe's use of the supernatural, much of her introduction centers on the ways in which the novel defies the "Gothic" label. As Castle asserts, "to label *The Mysteries of Udolpho* 'Gothic' and leave it at that would be a mistake."[3] This is because there are as many non-Gothic elements in her novels as there are crumbling castles and abandoned abbeys. To focus on the Gothic elements of Radcliffe's central novels, without acknowledging her engagement with science and the scientific method that came about during the eighteenth century, would be to miss a great part of what makes her work so relevant to her contemporaries, as well as authors who came after her, such as Jane Austen and Mary Shelley.

Any understanding of the "cultural system" of which Radcliffe's writing was a part must necessarily acknowledge the foundational and dialogic relationship between science and the arts during this time. Ann Radcliffe wrote during a time when rationalism and empirical scientific methods were gaining prominence, while still existing side-by-side with earlier types of natural sciences based on a philosophical understanding of nature. This shift in scientific practice and priorities can be seen in familiar science texts of the time, which carefully negotiate empiricism and classical references. At the same time, the division of labor in the medical marketplace of England was being challenged by unlicensed practitioners, ambitious surgeons, and "lady doctors," who used the vast amount of medical texts, treatise, and pamphlets in print to gain knowledge, and

[3] Radcliffe, Ann. *The Mysteries of Udolpho*. Ed. Bonamy Dobrée. Introduction and notes by Terry Castle. Oxford: Oxford University Press (1998): ix.

(especially in the case of the physicians and the surgeons) to present their case for medical authority to the public. These scientific debates stretch back to at least the seventeenth century, and took place both in practice and in print, where barbed prefaces and (sometimes fictitious) anecdotes were used to engage the reading public in scientific discussions at large.[4]

Likewise, increased education and literacy rates, along with the wide variety of books on botany, physic, anatomy, physiognomy, apothecary, and alchemy that were aimed at a wider audience, contributed at this time to a broadening of the landscape of scientific debate during the late eighteenth century. Radcliffe contributed to these new conversations through her novels, which address the transitional nature of science and education during the late-eighteenth century by presenting intricate descriptions surrounding scientific discourses and practices. These moments of scientific engagement function to place her characters within a cultural landscape rich in current scientific practices and debate. Much like her descriptions of the natural landscape that have been read through the lens of art, eighteenth century travel writing, and aesthetic theory, Radcliffe's use of the landscape of science can best be understood in relation to the many printed scientific books and pamphlets that circulated during her lifetime, along with images and descriptions of scientific practices and curiosities that helped shape public perception.

[4] Margaret Cavendish set a precedent for women's use of literature, along with non-fiction, to contribute to scientific arguments (See Wallwork on Cavendish- 49). Although she was not a scientist herself, Radcliffe engaged with broader social debate about science through the use of scientific details in character descriptions and medical anecdotes in her own stories.

By placing her contemporary heroines in at times distant time periods, filled with many of the vestiges of a feudal past that remained at the end of the eighteenth century, Ann Radcliffe shows the negotiation that must happen between rationality (represented by the scientific method) and sensibility, in order for the heroines to claim their place at the head of their rightful estate. Reading *The Romance of the Forest*, *The Mysteries of Udolpho*, and *The Italian* in dialogue with the visual and verbal rhetoric used in "scientific" texts of the time, allows us to see how Ann Radcliffe's work utilized elements of the Gothic to challenge narratives that elevated the rationalist impulse towards empiricism, by demonstrating that empiricisms itself was not without problems. Ultimately, reason must be tempered by sensibility before Radcliffe's heroines can overcome the obstacles presented by the gothic settings and cultural systems in her later novels.

Although scientific ideas pervade Ann Radcliffe's later work, her novels did not merely reflect late-eighteenth century ideas about science and knowledge; rather, her work utilized scientific ideas in a way that participated in the print conversation about the shifting role of science in the lives of people at the time. As Robert Miles states: "There is a difference between texts which 'reflect' contemporary tastes in fairly straightforward ways and ones that mediate these tastes in a more complex fashion, capable of addressing – of speaking to – the subjectivity of their readership. Radcliffe's books… fall into the second category (and not the first, which is where she used to be put)."[5] Although Miles

[5] Miles, Robert. *The Great Enchantress*. Manchester: Manchester University Press (1995): 14-15.

is referring to Radcliffe's use of the supernatural in this passage, his assessment of her engagement with contemporary thought also applies directly to her use of science education and the sciences in practice. The following chapters explore the ways in which these "scientific" elements both mediated, and participated in late-eighteenth century conversations about education, knowledge, and scientific inquiry.

Ann Radcliffe incorporated her scientific references within the framework of narratives that comment upon them (indirectly and directly) through the characters and settings in which they are viewed. In Radcliffe's novels, contemporary understandings of science are filtered through the lenses of place and character, to present accounts of particular scientific practices that are intertwined with the actions of the main characters in her stories. Radcliffe's characters participate in and discuss such topics as medicine, botany, astronomy, and physiognomy, in ways that reflect and comment upon specific scientific practices, as well as the nature of knowledge and its appropriate use. These moments range from fleeting references (Clara's reliance upon physiognomy in *Romance*) to interludes that introduce and define characters (the botanizing St. Aubert in *Udolpho*, and the layout of St. Aubert's and La Luc's studies in *Romance* and *Udolpho*), to stories-within-stories (the surgeon and the physician in *Romance,* and the wax figure in *Udolpho*).

Although this study diverges from the trajectory of Radcliffe studies that has primarily focused on gender, sexuality, psychoanalysis, and the sublime, I am not trying to dismiss the importance of the foundational work of Radcliffe scholars. Rather, Terry Castle's seminal work "The Spectralization of the Other in the Mysteries of Udolpho"

has inspired my desire to "read all of the fiction before us," and reclaim those elements of Radcliffe's novels that have escaped the notice of scholars.[6] Castle's work has also formed the foundation for my understanding of the false binary of fantastic and explained, and my interrogation of narrative, knowledge systems, and the body in Ann Radcliffe's novels. In addition, E.J. Clery's work historicizing and contextualizing gothic fiction, including her chapters, in *The Rise of Supernatural Fiction*, on the explained supernatural, the marketplace for the supernatural in the eighteenth century, and the political underpinnings of supernatural fiction, have been indispensable in formulating an understanding of the multi-faceted cultural influences and factors present in Radcliffe's work.[7]

In many ways my exploration of scientific practice vis-à-vis Radcliffe's heroines constitutes a critical response to the work of scholars such as Cynthia Wolff, whose "The Radcliffean Gothic Model," argues that the Radcliffean heroines', "… accomplishments and their supposed ingenuity and intelligence are never of the slightest practical use."[8] Contrary to this assertion, by looking at her heroines' engagement of science we can begin to understand the complex ways in which Radcliffe commented not only on scientific debate, but women's roles within the scientific cultures of the time, disrupting the notion of the helpless female, and the male domination of scientific inquiry.

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[6] Castle, Terry. "The Spectralization of the Other in *The Mysteries of Udolpho."* In *The Female Thermometer: Eighteenth-Century Culture and the Invention of the Uncanny*. New York: Oxford University Press (1995): 120-139.
[7] Clery, E. J. *The Rise of Supernatural Fiction, 1762-1800*. Cambridge: Cambridge University Press (1995).
[8] Wolff, Cynthia. "The Radcliffean Gothic Model," in *The Female Gothic*. Montreal: Eden Press (1983): 102.

Although I play with this disruption by looking at the gendered world of science and scientific education, gender is not the sole, or even the primary focus of my work. Rather, the transmission of scientific information and debate form the basis for my inquiries into the complex relationship between the explained supernatural, the culture of science, and the transitional nature of empirical knowledge during the late eighteenth century. In the words of E. J. Clery: "Radcliffe was considered a founding figure in her time, but for her atmospheric landscape description and device of the 'explained supernatural,' not for the heroine-centered narrative."[9] It is to the landscape of science and the "explained supernatural" that my study turns, in order to draw stronger connections between the practice of science as historically specific and related to print culture, and to show how the explained supernatural functions as a corollary to the empirical science being practiced by Radcliffe's characters.

By looking closer at Radcliffe's engagement with the sciences, I hope to fill in the gaps of the work of Castle, Miles, Clery, and Chard, among others whose analysis of gender, aesthetics, and the natural landscape in Radcliffe's novels has informed the basis of so much scholarly inquiry into Radcliffe's work in recent years. My goal is to provide an alternative reading of underrepresented elements of Ann Radcliffe's work that will allow us to revisit her novels as complex, dialogic works that engaged with written and visual scientific discourses of the time. In working toward this goal, I have followed the model of scholars such as Robert Mighall whose work on repositioning gothic spaces

[9] Clery, E. J. "Ann Radcliffe and D. A. F. de Sade: thoughts on heroinism." *Women's Writing* (1.2): 1994: 203.

provides a useful framework for a material cultures based historicist re-reading of Radcliffe. While Mighall rearticulates the landscape in Gothic literature to place it within the historical framework of London, I go a step further to populate the gothic and non-gothic architectural spaces with books and cultural practices that influenced how they were used and understood. In these cases, I have relied on the extensive body of scholarship on Gothic literature already available, while using primary materials in the history of science to support my argument.

Despite the rich body of scientific references within Ann Radcliffe's novels, almost no scholarly attention has been paid to this aspect of her work. This dissertation fills a gap in Radcliffe studies, by identifying and contextualizing four major areas of scientific engagement within her novels. Throughout this study, I present Radcliffe's work as a dialogic response to enlightenment science and literature. In this way, *The Romance of the Forest, The Mysteries of Udolpho, and The Italian* are repositioned as novels that employ both Gothic elements and scientific practice to highlight and challenge the limits of enlightenment rationalism.[10] As a response to dominant ideas about Radcliffe, my work is indebted to George E. Haggerty's *Gothic Fiction/Gothic Form*, as well as his *Queer Gothic*. In particular, Haggerty's framing of the "explained supernatural" as a response to the formal restraints of the Gothic mode in *Gothic*

[10] The question of "Gothic Science Fiction" also looms over this project, and while I am not sure that Radcliffe's work falls under this title, I do think that it is important to understand the ways in which her novels fit into the late eighteenth-century landscape of science and fiction. Perhaps the term scientific fiction is more fitting.

Fiction/Gothic Form has direct implications for how we may read sophisticated structural responses to formal and social constraints into Radcliffe's work.[11]

The title of this dissertation comes out of recent scholarship on the relationship between science and cultural representation, in particular explorations of science in visual and literary arts. The concept of "scientific imaginary" describes the relationship between science and the imagination as reciprocal and dialogic.[12] This framing of science and imagination, as well as the cultural productions long associated with imagination, as mutually constituent provides important context for the exploration of a highly imaginative genre of literature, at a time when the division of science from the arts was not yet established.

Each of the chapters that comprise this dissertation are organized around a group of scientific practices. The first chapter explores the shift in emphasis to empiricism in eighteenth-century scientific philosophy and practice, along with education in the home, through Radcliffe's third and fourth novels. The second chapter looks closer at the body—both living and dead—in Radcliffe's *The Romance of the Forest*, through the lens of medicine and anatomy. The third chapter turns to the pseudoscience of physiognomy, and the complex ways that Radcliffe both employs and seems to question what was a fashionable practice at the end of the eighteenth century. The fourth, and final, chapter

[11] Haggerty, George E. *Gothic Fiction/Gothic Form*. University Park: The Pennsylvania State University Press, 1989: 20.
[12] The term itself seems to first appear in print in: *The Scientific Imaginary in Visual Culture*. Ed. Anneke Smelik. Interfacing Science, Literature, and the Humanities. Vol. 5. Series eds. Vita Fortunati and Elena Agazzi. Gottingen: V&R Unipress (2010). Studies by John Bender and Tita Chico explore the scientific imaginary in relation to eighteenth-century literature, without explicitly calling it by this name.

looks closely at the material cultures of science surrounding the famous wax figure episode from *The Mysteries of Udolpho*.

Chapter One: Empirical Sciences and Education in the Home: *The Romance of the Forest* and *The Mysteries of Udolpho*.

In the epigraph to this introduction, taken from a 1794 review of *The Mysteries of Udolpho* attributed to Samuel Taylor Coleridge, the author observes: "There is, perhaps, no direct anachronism, but the style of accomplishments given to the heroine, a country lady, brought up on the banks of the Garonne; the mention of botany, of little circles of infidelity, &c. give so much the air of modern manners, as is not counterbalanced by Gothic arches and antique furniture."[13] To this reviewer, the location of Adeline's upbringing, and the practice of botany, are instrumental in placing Radcliffe's narrative in relation to modern concerns. In his review, he cites the banks of the Garrone as an example of the type of space that an eighteenth-century reader would identify with an idyllic education in modern manners: an education that would have included a foundation in botany and other natural sciences. In this setting, it is the marriage of the home and the landscape that creates the space of modern scientific inquiry and practice.

This chapter looks at the home as the site of scientific education and medical practice in *The Romance of the Forest* and *The Mysteries of Udolpho*. The spaces of science within the home, including the library, the greenhouse, and the laboratory provide

[13] *The Critical Response to Ann Radcliffe*, ed. Deborah D. Rogers. Westport, CT: Greenwood press (1994): 18.

the backdrop for both character and plot development, and themselves become a way for the reader visualize a place for each of Radcliffe's key characters within the socially charged space of the home. By reading the practice of science in relation to educational treatises such as Priscilla Wakefield's 1796 *Introduction to Botany*, fiction and non-fiction works by Rousseau, how-to books and illustrated science books aimed at a non-specialist audience, we can begin to see how science is presented as a part of the social fabric of daily life for some of Radcliffe's characters, while for others, it constitutes a break from traditional social or gender roles.[14]

This chapter focusses closely on the, at times uncomfortable, overlap of botany as both a polite science for men and women, and as a practice that had a practical application in the home remedies often crafted and administered by women. This juxtaposition of education, accomplishments, and medical practice is one of the ways that Radcliffe engages with the overlap of the landscape of science and the medical marketplace in *The Romance of the Forest*. This uneasy relationship between science and accomplishments, as well as medicine as a socially charged practice can be seen in other eighteenth-century novels as well. To support my conclusions about Radcliffe, I also look at the novels of Jean-Jacques Rousseau and Maria Edgeworth, as well as the poetry of Erasmus Darwin.

[14] At the end of the eighteenth century none of these spaces would have been considered necessarily private; rather, they would have comprised part of the domestic public spaces of the home in which family members, along with visitors, would have gathered. However, it is worth looking closer at the variety of "public" spaces in which science was practiced in the eighteenth century.

Chapter Two: "This strange doctor that no body knows": The Medical Marketplace and Anatomy in *The Romance of the Forest*.

Nowhere does Radcliffe engage more actively with medical knowledge than in the scenes of the physic and the surgeon in *Romance of the Forest*, in which the hero, Theodore, has been wounded, and the heroine must manage his medical care. For Adeline, the stakes of losing her way in the negotiation of medical care are just as high as getting lost on a dark mountain path, and the "banditti" (in the form of the Marquis' men) are a constant threat while Theodore convalesces. However, this scene is not just another example of "virtue in distress," but an aesthetic engagement with scientific dialogue, in which the power structure established in the scenes of Adeline's rescue by la Motte is reversed.

In the medical marketplace of the late eighteenth century, knowledge is power, and Adeline's quick thinking means the difference between life and death for her would-be rescuer. Therefore, Adeline's participation in the medical treatment of Theodore upsets the roles of rescuer/rescued, established in the first scenes of the novel, in which Adeline finds herself helpless and at the mercy of strangers. The range of medical knowledge that Adeline demonstrates, along with Ann Radcliffe's allusions to the complex relationship between various types of medical practitioners, creates a multi-faceted discourse about medical and scientific practice at the end of the eighteenth century.

In the scenes of Theodore's wounding and convalescence, the medical profession in general is initially treated with distrust by both Adeline and the townspeople. In this chapter, I explore how Adeline's distrust of the surgeon is tied closely to a convention of printed treatise and medical texts: the anecdote as evidence. Popular titles such as *Medical Anecdotes of the Last Thirty Years, Illustrated with Medical Truths, and Addressed to the Medical Faculty; But in an Especial Manner To the People At Large,* by B. Dominiceti, M.D. (London 1781), presented case studies of patients encountered in the author's practice, as well as anecdotes shared by other physicians. These types of cautionary stories were common in medical treatises intended for a general audience in the seventeenth and eighteenth centuries, but Radcliffe's use of the convention goes beyond mere citation, employing satire to comment upon the use of the genre by a surgeon.[15]

In addition to the practice of medicine, this chapter also traces the visual rhetoric of anatomies in practice and in print, to show how the broken body in the Gothic mode corresponds to the anatomized body on display in the eighteenth century. By reading the practice of medicine against the anatomized body, we can see how complex and complex Ann Radcliffe's use of injury, violence, and death were. Not only do her characters make sophisticated decisions about their health and wellbeing, but they read visual clues from physical remains in a way that resembles an early form of forensics.

[15] Anecdotes about dangerous medical practitioners existed both in medical literature and treatise about "quacks, &c.," but also in miscellanies, such as *Sylva, or, the Wood: Being a Collection of Anecdotes, Dissertations, Characters, Apophthegms, Original Letters, Bon Mots, and Other Little Things.* By A Society of the Learned. London: T. Payne. 1788.

Chapter Three: "There is something in her features": Physiognomy and the Radcliffean Character.

"There is something in her features… that prejudices me in her favor" (*Romance* 256).

This chapter explores the ways in which Ann Radcliffe used physiognomy to underpin the descriptions of her heroes and the actions of her characters. From the "symmetrical" heroines Adeline and Emily, to Madame La Luc's chastisement of Clara for her physiognomic judgment of Adeline in *Romance*, to Monsieur St. Aubert's assessment of Valancourt in *Udolpho*, physiognomy permeates not only the descriptions of Radcliffe's characters, but their action and expectations as well. In many ways, some of the most important (and baffling) decisions made by Radcliffe's characters, are made because of conclusions reached through physiognomy.

In 1789, Henry Hunter's translation of Johann Caspar Lavater's *Essays on Physiognomy, Designed to Promote the Knowledge and the Love of Mankind* was printed in English for the first time. More than eight hundred engravings accompanied the three volumes of text in quarto. According to Robert Mighall: "This work, along with the systems devised by Gall and Spurzheim and developments in physical anthropology and natural history, helped to establish the practice of reading individual appearances according to systematic and scientific criteria."[16] Suddenly, this once outdated (gothic) practice became a scientific pursuit, with a scientific method behind it. In many ways, the variety of engagements with this "science" within Radcliffe's novels reflects the variety

[16] Mighall, Robert. *A Geography of Victorian Gothic Fiction: Mapping History's Nightmares*. Oxford: Oxford University Press (2003): 174.

of sources in print for information on physiognomy at the end of the eighteenth century. From pamphlets to expensive, illustrated folios, there was a broad range of printed materials that explained the art (or science) of physiognomy to a broad range of readers. Radcliffe used her different characters to comment upon the (classed) uses of physiognomy described in these pamphlets and books, at times questioning its validity directly. However, she does not outright condemn the practice, at times using it to positive effect.

Chapter Four: Not Merely "Monkish Superstition": The Science behind *Udolpho*'s Wax Figure.

Thus, for example, after all the wonder and dismay, and terror and expectation, excited by the mysterious chamber in the castle of Udolpho, how much are we disappointed and disgusted to find that all this bother has been raised by an image of wax![17]

Unlike the first three chapters of this dissertation, this chapter focusses on one key element of one of Ann Radcliffe's novels: the wax figure in *The Mysteries of Udolpho.* In many ways the most maligned instance of the "explained supernatural," when Emily uncovers the wax figure behind the veil in the second volume of *Udolpho*, the reader is left with little explanation for Emily's distress, besides "perceiving that what it had concealed was no picture, … she dropped senseless to the floor." As Robert Miles states, "Until the very end the object's identity is a blank the reader is invited to fill in… The

[17] *The Critical Response to Ann Radcliffe*, ed. Deborah D. Rogers: 101.

final revelations dissipate these conjectures. And yet the shadowy presence of exploded guesses are as much a part of the text – as much a part of what the reader has to interpret and consider – as what is finally disclosed as the 'truth,'"[18] Based upon the described horror of Emily, it is reasonable to assume that the reader would have imagined something unspeakable lay behind the veil, so it is no wonder that contemporary critics were disappointed when they found out (at the end of the fourth volume) that the veil did not hide something horrifying at all, but a common spectacle to tourists in Italy and London at the time: the anatomical wax figure.

The scene with the veil, and its subsequent explanation, is much more interesting than contemporary reviews would have us believe. Radcliffe uses the wax figure in a variety of ways that tests her heroine, Emily, while commenting both on the macabre objects of anatomical sciences and the impossibility of practicing scientific observation in the face of feudal power structures. It is easy to read Emily's act of witnessing, in that it is private and does not follow the scientific method, as the foundation for the terrible misunderstanding that drives her actions; because she is working under a faulty premise, Emily makes decisions that are not always in her best interest. However, it is not that simple. This chapter looks beyond the idea that if Emily had only taken more time to examine the object before her she would have realized her mistake, to explore the underpinning social and historical factors that influence our understanding of anatomical wax figures as evidence.

[18] Miles, *The Great Enchantress* 134.

To contextualize the wax figure itself, I look at travel narratives to see how the rhetoric of superstition pervaded English descriptions of anatomical wax figures, and Italian burial practice. I also look at advertisements, reviews, and descriptive catalogs associated with Rackstrow's Museum on the Strand and Mrs. Salmon's Waxworks. Described as "unwholesome," and even "pornographic," Rackstrow's participated in the transition of the wax figure from scientific (or knowledge producing) to spectacle in the English consciousness. In many ways, the wax figure in the castle of Udolpho also illustrates the uneasy relationship between science and spectacle in both Italy and England, at a time when public performance of science had both pedagogical and entertainment value.

Conclusion

This dissertation opens up a discussion about how Ann Radcliffe defined later tropes of science in Gothic literature, through her extensive engagement with scientific education and practices. By approaching the work of Ann Radcliffe through the lens of the history of science, we can begin to understand more deeply the eighteenth-century origins of what would become an important facet of nineteenth-century Gothic literature: its engagement with fears about science and technology. (Re)placing this discussion of literature and science back in the late eighteenth century has deep implications for how we read the work of Ann Radcliffe, as well as later Gothic novels such as *Frankenstein* and *Dracula*.

Radcliffe's use of gothic settings and tropes to comment upon and engage with scientific ideas and controversy set her apart from other authors of her time, while her use of the explained supernatural, when read through the model of empirical sciences, becomes a tool to both demonstrate and critique observational methods of knowledge production. If the explained supernatural was unsatisfying to Radcliffe's readers (as it still is today), perhaps this has more to do with concerns about the limits of empiricism and rationalism at the end of the eighteenth century and beyond. This is not to say that Radcliffe was anti-enlightenment; rather, her novels presented a nuanced articulation of the complex landscape of sciences during a time when the sciences were incredibly popular, but were in many ways still being questioned. This detailed engagement with the sciences is what set Radcliffe's work apart from other Gothic novels of the time, particularly the work of Mathew Lewis, but it is also what put her novels in line with many other novels, poems, and educational treatise at the end of the eighteenth century and beyond.

Chapter 1

Empirical Sciences and Education in the Home: The Romance of the Forest and The Mysteries of Udolpho.

I will begin my study of science in the Gothic novels of Ann Radcliffe by looking closer at late eighteenth-century illustrated botany texts and familiar science books for evidence of textual models of education, in particular rhetoric about the importance of direct observation, to better understand how these books may have informed the author's presentation of the practice of domestic science and education in her novels. In both *The Romance of the Forest* and *The Mysteries of Udolpho*, we see young heroines being educated in science in home laboratories, libraries, sitting rooms, green houses and gardens, using observation, instruments, and books. These moments of scientific engagement range from fleeting references, to detailed descriptions used to establish setting and characters. They are at times accessible to a general audience, and at others, they may seem hidden in plain sight because of the specialized knowledge from which they stem.

This knowledge—of botany and familiar sciences—was intimately tied to print culture and the system of education in the home during the long eighteenth century. Because of this, it is difficult to fully understand Ann Radcliffe's engagement with the familiar sciences of her time without looking closer at some of the key educational, scientific, and literary texts that circulated during the time she lived and wrote. During the last half of the eighteenth century, botany and other familiar science books proliferated, with many of them being intended for use in the home. At the same time, the 1790's were a critical period for botany as a science. As Elizabeth Jayne Lewis argues,

"In 1794, botany was a branch of natural philosophy that had recently expanded its own authority through two fundamentally symbolic innovations: Linnaean taxonomy and the introduction of color to botanical drawing."[19] The introduction of Linnaean taxonomy to vernacular botany texts aimed at a general audience brought botany into the home in a form that was closely connected to the systematized empiricism that became the underlying principle of scientific practice during the eighteenth century. [20] The inclusion of colored illustrations drawn from life (what Kukisawa refers to as "counterfeit" images) rendered this new system of observing and classification accessible to a broader audience through detailed images, combined with dialogic explanations. In addition, the epistolary form and the fictitious frameworks that surrounded many general botany books presented botany as both an acceptable and a desirable course of study for young women. As Ann Shteir observes in *Cultivating Women, Cultivating Science*: "The ease and simplicity of the [Linnaean] system recommended botanical study to men, women, and children."[21] Linnean botany acted as a bridge between botany's roles as female "accomplishment" and the new scientific methodology taking root in Europe during the eighteenth century. Numerous eighteenth-century primers on botany, in general, and the Linnaean system, in particular, attest to the popularity of botany as a familiar science.

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[19] Lewis, Jayne Elizabeth. *Air's Appearance: Literary Atmosphere in British Fiction, 1660-1794*. Chicago: University of Chicago Press (2012): 233.

[20] The surge in popularity of botany among women, in particular, may have led to the early nineteenth century backlash against the science as a mere domestic accomplishment. As Amy M. King argues in *Bloom*, "The presence of popularizing texts,… situated as they were within a domestic and familial sphere, shepherded in a gradual shift in Linnaean botany's place in culture from a popular high science to one that might be more accurately called a popular science" (56).

[21] Shteir, Ann. Cultivating Women, Cultivating Science: Flora's Daughters and Botany in England, 1760-1860. Baltimore: John's Hopkins University Press (1996): 4.

Despite its popularity, the study of botany was not without its dangers during the Romantic period. Although the prevailing Linnaean system made the study of plants accessible to a wider audience, its framing of plant life as sexual, through the study of the sexual parts of plants as identifying attributes, was seen as an inappropriate subject for ladies, by some. As Shteir explains, "Cultural tensions about women, gender, sexuality, and politics clustered around this issue;"[22] while some printed botanical treatise sought to efface the sexuality from Linnaean botany, others participated in the cultivation of these tensions through overt reference to the sexual system of classification in almost romantic terms. Erasmus Darwin's sumptuous text, *The Loves of the Plants: A Poem,* makes obvious the sexual system of plant reproduction that forms the basis of the Linnaean system of plant classification; in Darwin's poem, female plants exhibit sexual agency that includes polyamorous relationships and sexual choice to improve procreative outcomes.[23] While embraced by female authors, including Charlotte Smith and Mary Shelley, for some (mostly men) *The Loves of the Plants* represented what was wrong with the entire system of female education in botany: "Botany has lately become a fashionable amusement with the ladies. But how the study of the sexual system of plants can accord with female modesty, I am not able to comprehend," the Reverend Mr. Richard Polwhele wrote in his poetic "assault" on female education (Pascoe 200). Polwhele's indictment of

[22] Shteir 4.

[23] See, for instance Darwin's description of Collinsonia: "[_Collinsonia_. l. 51. Two males one female. I have lately observed a very singular circumstance in this flower; the two males stand widely diverging from each other, and the female bends herself into contact first with one of them, and after some time leaves this, and applies herself to the other" (Canto 1 note). The accompanying poem is even more explicit: "Two brother swains, of COLLIN's gentle name, / The same their features, and their forms the same, / With rival love for fair Collina sigh, / Knit the dark brow, and roll the unsteady eye. / With sweet concern the pitying beauty mourns, / And sooths with smiles the jealous pair by turns" (lines 51-56).

botany implicated other forms of female education as well: education itself was guilty by association with Linnaeus' scandalous system.

Despite its vocal opponents, Darwin's poetical treatise on Linnaean botany was very popular when it was printed, and went through at least four editions between 1791 and 1799. In 1797, Darwin also published a treatise on female education that argued for educating women using novels and a variety of scientific texts.[24] Although Darwin's work actively foregrounded the sexualized aspects of Linnaeus' work, even the most conservative texts that purported to be based upon the Linnaean system could not expunge all sexual reproduction from their tables and illustrations. All one has to do is look close enough at a pull-out chart of Linnaean taxonomy,[25] or a diagram showing the stamen and pistils, to see that sex is everywhere in eighteenth century botany.

Aside from the threat of sexual knowledge, botany and other familiar sciences encouraged women to draw their own conclusions about the world around them, using empirical evidence, coupled with an aesthetic (and sentimentalized) engagement with nature. As Sam George argues, "to encourage women actively to derive botanical knowledge from observation and experience was, in some way, to invite them to participate in the whole modernist project of experimental science."[26] In other words, by indoctrinating women into a system by which knowledge is produced, in part, through their own direct observation, botany and the familiar sciences were not merely subjects to

[24] Erasmus Darwin. *A Plan for the Conduct of Female Education*. J. Johnson: Derby (1797).
[25] 23 of Linnaeus' 24 classes were based upon the number, length, and physical manifestation of the stamens, or "male" reproductive parts of the flower.
[26] George, Sam. *Botany, Sexuality, and Women's Writing, 1760-1830: From Modest Shoot to Forward Plant*. Manchester: Manchester University Press (2012): 65.

be studied, but the basis for an education that could fundamentally change the way that women and children understood their world.

Shteir pushes this argument further, arguing that "[Familiar science narratives] provide a representation of female authority that is akin to the rise of female authority noted in domestic fiction. A certain ideal type, self-possessed and self-controlled, [the mother] is rational mother rather than biological woman, moving beyond reproduction into rationality. The familiar format therefore offers at once a model of pedagogy, of motherhood, and of woman."[27] Interestingly, although Radcliffe's heroines are motherless and educated by men, they themselves work toward this ideal female type, stressing self-control and rationality in their decisions. For instance, when Clara La Luc neglects her lessons and her duties in her obsession with music, her father allows her to experience the ramifications rather than a lecture: "'Let experience teach her her error,' said he; 'precept seldom brings conviction to young minds.'"[28] Later in the novel, it is noted about Clara: "La Luc had taught her to familiarize her mind to reasoning, and had accustomed her to deliver her sentiments freely… which convinced her hearers that the love of knowledge… induced her to converse."[29] The focus of a Radcliffean lesson is the inculcation of reason, combined with sentiment, with the agency of the learner taking central focus. The teacher/father is a gentle catalyst in this scenario, providing the

[27] Shteir 102.
[28] *Romance* 249.
[29] *Romance* 276.

conditions for repeated observation and reflection, while the heroine(s) are the actual agents of their own understanding.

In this way, Radcliffe contributed to the contemporary conversation about female education when she had her heroines not only engage with science, but take an active role in their scientific education and apply that education to high-stakes decision making and problem solving.[30] By doing so she takes a position in the active debate surrounding the idea of female education vs. accomplishments, which in many ways stemmed from a combination of new educational theories and texts—and responses to those ideas by feminist thinkers and educators such as Mary Wolstoncraft and Hannah More.[31] During the late eighteenth century, more and more books were being written about female education in general. Botany, astronomy, and chemistry formed the foundation for the model of female education promoted in pedagogical texts and novels written by Jean-Jacques Rousseau, Erasmus Darwin, Maria Edgeworth, and others.[32] I argue that these texts presented science as more than just an accomplishment, but a way to teach a new way of thinking that combined sensibility and rationality. It is this balance that every Radcliffean heroine must negotiate to successfully make it to the end of the narrative, and in the case of Udolpho and Romance the heroines are given the kind of education that

[30] Other late 18th and early 19th century novelists such as Maria Edgeworth and Charlotte Smith also presented strong female characters engaged in practicing, and teaching, science in the home. For examples of this, see Edgeworth's *Belinda*, and Smith's "Beachy Head" and other poems. One of the key contributions Radcliffe made to literature was her introduction of the explained supernatural, which Edgeworth plays with in *Belinda*.
[31] See Trouille, Mary Seidman. *Sexual Politics in the Enlightenment: Women Writers Read Rousseau*. New York: State University of New York Press (1997).
[32] See Erazmus Darwin. *A Plan for the Conduct of Female Education*. J. Johnson: Derby (1797): p.45.

stresses this balance. In a way, each of these novels is a playing out of the tension between a rational education and "natural" sensibility.

It is important to remember that through the eighteenth century the line between fiction and non-fiction, science and literature, were not always clearly delineated. For example: Wakefield and Rousseau employed fictitious frame narratives in their introductory texts about botany; Rousseau's fiction also carries a similar didactic function to his *Letters*, and as we shall see at the end of this chapter, Edgeworth's *Belinda* contains scenes that illustrate the successful application of the empirical method that fails Radcliffe's heroines.[33]

In addition to the works of Rousseau, Darwin, and Edgeworth, other educational treatises about botany, often in the form of dialogues, constituted a popular genre at the end of the eighteenth century. These texts utilized elements of fiction to contextualize the scientific concepts that they presented, combining storytelling techniques with botanical information in a way that defies our current desire for fact/fiction binaries. As Laurence Talairach-Vielmas tells us, "Following Aikin and Barbauld, women gradually moved away from didactic literature to propose popular science texts which played upon narrative strategies and highly visual rhetoric to redefine science as no longer dry and boring" (5). Books such as Priscilla Wakefield's 1796 *Introduction to Botany, in a series*

[33] Edgeworth, who argued for the education of women in botany and chemistry in 1795, one year after Radcliffe published *Udolpho* (Fara 17), and who cited Erasmus Darwin's *The Botanic Garden* (1791) as an example of how science could be made accessible to a female audience through poetry, will be given more in-depth analysis at the end of this chapter (See Patricia Fara, 17-18). Charlotte Smith was another notable female novelist who engaged with botany in her poems and (to a lesser extent) in her novel *Emmeline*.

of Familiar Letters, with Illustrative Engravings,[34] presented botany as "an antidote to levity and idleness" by specifically seeking to "[employ] the faculties [of young ladies] rationally" (Wakefield, Preface).[35] For Wakefield, rational employment in learning about an established system of botany is accomplished through a fictitious narrative that appeals to a reader's sensibility, as well as her rational understanding of the world around her. Here we see sentiment working in favor of science and observation.

Framed as a series of letters between two sisters, who are separated for a summer, Wakefield's botany text is predicated upon the same idea of separation and loss inherent in Radcliffe's Gothic novels. The "letters" themselves are all written by one sister, Felicia, who laments at the beginning of the first letter, "As it is an unusual thing for us to be separated, I do not doubt but we equally feel the pain of being at a distance from each other. When I consider, that you are really gone to pass the whole summer with my aunt, and that I have parted with the beloved companion of my walks and amusements, I think I shall but half enjoy either…."[36] She then continues, "Every place here looks solitary, especially… our favorite haunts in the garden. Even the approach of spring, which is marked by the appearance of snowdrops and crocusses, affords me but little pleasure."[37]

[34] This was not a large book, but rather designed to be portable.
[35] Thomas Martyn, the translator of Rousseau's *Letters on the Elements of Botany*, himself wrote several botanical primers, including: *The language of botany: being a dictionary of the terms made use of in that science… with familiar explanations* (1796). In the case of Martyn's text, "familiar explanations" does not refer to letters, but rather the dialogic explanations of Linnaeus for an unlettered audience; the structure of this text follows that of an alphabetical dictionary, with definitions and familiar explanations interspersed.
[36] Wakefield B1r.
[37] Wakefield B1v.

This exchange could just as likely be taken from the final conversation between Emily and Valancourt in Mme. Montoni's garden before Emily is taken away to Italy.

In both texts: the botanical primmer, and the Gothic romance, empirical observation of the natural world helps the heroines understand their place in an at times foreign and hostile world, and maintain connections to those they love across great distances. In fact, after their separation, Emily comforts herself by imagining Valancourt gazing on the Pyrenees while she is away and Valancourt secretly delivers a letter to Emily, devising a system by which they can observe the sunset to know that they are thinking of each other at the same time. This letter serves to reinforce the attachment between Emily and her lover, by establishing a process by which they could use observation of astronomical processes to provide a conduit between their minds: "'You will then meet me in thought,' said he; 'I shall constantly watch the sun-set, and I shall be happy in the belief, that your eyes are fixed upon the same object with mine, and that our minds are conversing.'"[38] The importance of observation to understanding and connection are immediately noticeable, while the metaphysical connection that organized observation of the same object provokes, reinforces the framework of both botanical primer and Radcliffe's novel: observation of nature can lead to knowledge of the self in relation to others, and forms the foundation for social ties. Similarly, Field's Felicia uses observations of the natural world to remain connected to her absent sister, both through shared memories of the landscape, and shared natural history experiences across distances.

[38] *Udolpho* 163.

Although it is through direct experience that Radcliffe's heroines develop an understanding of their (often tumultuous) worlds, despite their education in the polite sciences, Emily and Adeline often fail to find the truth through observation. This failure of empiricism illuminates the flaws in a system that teaches women to "see" for themselves, while denying them the cultural agency to use that observation to make decisions outside of the home. While they are still under the care of a paternal educator, Emily and Adeline's imaginations are allowed an unproblematic equal reign with observation and systematic learning; however, this same imagination, coupled with overt sensibility, becomes an obstacle to proper observation when the heroines are confronted with the dangerous reality of their tenuous subject positions in society.

Radcliffe presents the failure of a system of education founded on observation, when the student/observer's sensibility becomes a liability in the often dangerous, male dominated world represented by Gothic spaces and places in her novels. As Claudia Johnson observes: "Who can worry about marriage when there are corpses stashed behind curtains?"[39] I would argue: Who can effectively observe and analyze evidence, when there are corpses stashed behind curtains, and no one to share your observations with? In other words, in the essentially feudal spaces of the castle, the abbey, and the ancient country estate, the same sensibility (and curiosity) that Rousseau promoted as being essential to proper observation of the natural world is heightened, becoming a liability that can mistakenly be read as an inability to observe properly due to the

[39] Johnson 76.

interference of the imagination. It may seem that it is sensibility that keeps Adeline from following the clues of the manuscript (and her dreams) to her father's actual body, if we ignore the concurrent threat to her life. And it is just as easy to blame Emily's "natural sensibility" for her failure to examining the "body" behind the veil further, until we realize that she is actually under a great physical threat that her "discovery" seems to heighten and reinforce. Add to this the fact that neither of these heroines have anyone to work through these observations with, and the very social structure they are working within seems to collude to prevent their ability to process the information they are able to gather.

The imagination, then, is not the true culprit behind the Radcliffean heroine's inability to fully observe the clues around her to solve the mysteries in the novels. This idea is supported by the pedagogical theories of both Rousseau, and Erasmus Darwin, the advertisement sheet for whose sumptuous tome, *The Botanic Garden*, states:

> The general design of the following sheets is to inslist [sic] Imagination under the banner of Science; and to lead her votaries from the looser analogies, which dress out the imagery of poetry, to the stricter ones, which form the ratiocination of philosophy. While their particular design is to induce the ingenious to cultivate the knowledge of Botany, by introducing them to the vestibule of that delightful

> science, and recommending to their attention the immortal works of the celebrated Swedish Naturalist, Linneus.[40]

In this formulation, imagination is viewed as a "hook" to draw the interest of the non-scientific mind, with the stated aim of moving from the "looser," or more general concepts communicated in poetry, to the "stricter," or more scientific language of the footnotes. While Radcliffe's novels are not aimed at teaching scientific principles, they do, nonetheless offer complex situations in which imagination and reason are juxtaposed with the ultimate goal of unraveling mysteries that can ostensibly be solved through direct observation. The imagination, in the Gothic world of *Udolpho*, may seem to act as a foil to Emily's ability to observe closely, but it is actually the danger of her precarious position in society, and the bodily threat attendant, that overwhelms her senses and keeps her from fulfilling the Rousseauvian directives to look closely and re-examine the evidence before her.

In addition to botany books, more general educational texts, such as Benjamin Martin's 1772 *The young gentleman and lady's philosophy, in a continued survey of the works of nature and art; by way of dialogue. ...*, promoted astronomy, botany and chemistry as "polite sciences" for young gentlemen and women, using the rhetoric of education in the home (also seen in *Romance* and *Udolpho*). In speaking about the natural history volume of his text, Martin states: "the same familiar method is adhered to, as the

[40] a2r. This heavily annotated poem includes over 10 pages of additional notes at the end, along with a table of contents for the footnotes included throughout the poem (Cc2r-Cc3r). These notes range from scientific to cultural.

most likely to awaken curiosity, and to fix attention."[41] This "familiar method" presented science as a narrative, in this case through dialogue, to make it not only accessible, but interesting to the reader.

Martin is also mindful of the expense of a multivolume work, and takes pains to ensure that his third volume will be available to his readers, especially the purchasers of editions previous to the printing on the three volume expanded edition, "at a very small expense."[42] It is important to note that these types of familiar science texts promoted sciences as philosophical pursuits, not practical ones, in that they were meant to improve the mind and to prepare the young person for polite society, not the practice of science as a craft.[43] This is an essential distinction that speaks to the classed view of physical labor of any kind, which began to shift at the end of the eighteenth century. Ann Radcliffe plays with this distinction, showing how the principles of empiricism learned in the home fail when they are tested out in the world.

Although *The Romance of the Forest* is set in late sixteenth century France, and *The Mysteries of Udolpho* is set in France and Italy in the early eighteenth century, the social anxieties and characterization in each of these novels reflect contemporary scientific debate in England during the late-eighteenth century. For this reason, I will refer to the

[41] Martin, Preface 1.
[42] Martin, Preface 2.
[43] Maria Elizabeth Jackson's *Botanical Dialogues, Between Hortensia and her Four Children*, stands in contrast to this idea about useful pursuits being unsuitable for aristocratic youth. In her narrative, the children must prove themselves capable of engaging in both practical pursuits and sciences. However, the narrator is clear about the importance of scientific education in the home: "…in any situation the study of a science teaches us to think, which is the foundation of all acquirements, and in my opinion of more value than all the train of accomplishments commonly taught at schools" (E3v).

scientific concepts and inquiry within these novels as “contemporary" to Radcliffe, while understanding that many of these scientific ideas and debates stretch back to the seventeenth and sixteenth centuries, and some even earlier. This is not without precedence; Radcliffe’s earliest reviewers recognized her characters as contemporary to their time as well. We see this in the 1794 review of *The Mysteries of Udolpho,* cited at the beginning of this chapter: “There is, perhaps, no direct anachronism, but the style of accomplishments given to the heroine, a country lady, brought up on the banks of the Garonne; the mention of botany, of little circles of infidelity, &c. give so much the air of modern manners, as is not counterbalanced by Gothic arches and antique furniture."[44] In particular, these anachronistic details place Radcliffe’s heroine in the middle of the much larger debate surrounding a system of female education that privileged “accomplishments” over the type of abstract thinking and analysis that Emily will be required to engage in. Feminist thinkers and educational theorists, like Mary Wolstoncraft and Hannah Moore, were heavily influenced by Rousseau’s theories, despite his paternalistic views about women.[45] And his influence on ideas about education at the end of the eighteenth century cannot be underestimated. Because of this, when Radcliffe’s narrator cites the spaces of domestic education, removed from society on the banks of the Garonne, she is providing an example of the type of space that an

[44] Rogers 18.
[45] As Mary Seidman Trouille asks in her introduction to *Sexual Politics in the Enlightenment: Women Writers Read Rousseau*, “How can one explain the puzzling fact that [Rousseau’s] views on women’s nature, role, and education—views that seem reactionary, paternalistic, even blatantly misogynic today—met with such enthusiastic approval among so many women and had such a tremendous impact on their ideals, behavior, and family life?” (2-3). According to her study, Rousseau’s impact on theories of female education in particular, although not uncontroversial, was widespread.

eighteenth-century reader would identify with an idyllic education in modern manners promoted by Rousseau; an education that would have included a foundation in botany and other natural sciences.

It is the marriage of the home and the landscape that creates a space for "modern" scientific inquiry and practice within *The Romance of the Forest* and *The Mysteries of Udolpho*. And it is the juxtaposition of these eighteenth-century spaces with the gothic castles and abbeys that creates the space for critically engaging with the disconnect between the burgeoning system of empirical education in the domestic sphere, and the prevailing eighteenth-century idea of female "accomplishments" in the face of essentially feudal power structures literalized by the castles and abbeys in which Radcliffe's heroines are imprisoned. The material reality of these spaces as places that uphold still-surviving feudal power structures at the end of the eighteenth century is important. As Claudia Johnson reminds us: "[I]t has been so easy to believe that decaying castles could not actually represent actual, material features of the European countryside inscribing the still surviving feudal past…," but when we recognize them as such the criticisms leveled against Radcliffe's vaporish heroines seem unfair.[46] It is precisely these vestiges of persistent feudalism that haunt Radcliffe's heroines—marriage plots and property rights form the foundation for all of her major novels—drawing a clear distinction between an idyllic country education—cited by Radcliffe's contemporary reviewers—and the wider world in which the skills of observation and analysis have no purchase, Robert Miles'

[46] Johnson 76.

concept of the "gothic cusp" touches on this disconnect, defining it as temporal.[47] However, I will extend this reading to argue that Radcliffe uses what critics identify as anachronisms to redefine the gothic cusp in the tension between the gothic spaces and the more contemporary places, between the vestiges of feudal social practices and eighteenth century scientific practice. She uses these remaining gothic vestiges to highlight the extreme disconnect between the ideal of female education and the reality that educated women faced in the face of social systems that can be read as still essentially "gothic," or at least thinly veiled extensions of the gothic models upon which they are based. In this context, a seeming failure on the part of the heroine to practice "good science" must be read as an equal failure of the social context in which she is attempting to apply her education.

To say that Radcliffe's novels are strictly Gothic would be to miss the rich contemporary and historic details that she used to ground her work in a temporal and spatial "grey area," between what was viewed as a "dark" past, and the perceived "light" of eighteenth century discoveries and debates[48]. So, while the gothic spaces of medieval castles and abbeys—foregrounded in nearly all critical reactions to the Gothic, from Eino Railo's 1927 *The Haunted Castle,* to notable feminist readings, such as Kate Ferguson Ellis' 1989 *The Contested Castle*, to academic blog posts, such as Deborah Russel's

[47] Miles defines the gothic cusp temporally, as the time period when "the medieval wanes, and the modern begins," but he himself finds this temporal designation problematic. Miles, Robert. *Gothic Writing, 1750-1820: a Geneology*. New York: Manchester University Press (2002): 29.
[48] In his discussion of Byron's *Werner*, Miles explains: "Werner uses the historical setting of the Gothic cusp to accentuate Werner's modernity, his alienation, paradoxically through conflict with his son Ulric, now, conspicuously, the last of the Goths" (*Gothic Writing* 204). In a similar way, perhaps Radcliffe uses the Gothic cusp to accentuate the scientific and medical agency that her characters exhibit.

"Gender and the Gothic Space"—are important elements to Radcliffe's work, it is important to remember that the heroines of *Romance* and of *Udolpho* do not start their lives in such foreboding places, nor do they inhabit them exclusively.[49] It is in the chateau, the boarding house, and the small village that these characters are educated and where they encounter science in practice; therefore, it is in these spaces that I will begin my analysis of scientific practice in *The Romance of the Forest* and *The Mysteries of Udolpho*. Without understanding their education, we cannot see the full complexity of the evidence-based decisions that these heroines make, under the most oppressive circumstances. In other words, we cannot understand how empiricism is tested in the Gothic spaces of these novels if we do not first read the scientific foundations of the education systems out of which they grow.

Empirical science is presented as central to the home/family in both *The Romance of the Forest* and *The Mysteries of Udolpho*. This intersection of the public and the private, of experimentation and education, forms the basis for Radcliffe's descriptions of the home as space. Unlike the moldering abbeys and sublime castles in which the heroines of *Romance* and *Udolpho* find themselves, the idealized homes of their early (or in the case of Adeline, later) education are ordered around a central, communal space in which the instruments of intellectual inquiry (books and scientific apparatus) are available to them. These homes offer a counter-discourse to the uncertainty and terror of the "gothic" spaces within the novels, by offering a site in which pursuing explanations

[49] Townshend, Dale. "Improvement and Repair: Architecture, Romance and the Politics of Gothic, 1790–1817." *Literature Compass* (8:10) pp. 712-738, 2011 Oct.

for phenomena is not only possible, but desirable. In the home and surrounding grounds, the natural inquisitiveness of Radcliffe's heroines is nurtured through lectures and educational walks, observation and reflection, literature and music. It is also in this space that Emily encounters her first mysteries, and where she learns that some mysteries are not to be shared.[50] This careful crafting of scientific spaces in Radcliffe's novels does more than just echo the framework of botany books written in the "familiar" format. As Ann Shteir argues: Women writing about science in the familiar format integrated topics of general interest and shaped a geography of domestic settings and family routines."[51] Similarly, scientific education in *Udolpho* and *Romance* is both shaped by, and helps to shape the domestic space.

The studies of La Luc and St. Aubert are both adjacent to public areas, accessible to the family, and act as places of communal discussion "enlightened by science, and enlarged by observation."[52] This insistence on "observation" as a means of increase one's understanding is at the center of the empirical sciences that were popularized by Bacon and Newton, and supported by illustrated science books and "how-to" books during the seventeenth and eighteenth centuries.[53] This type of experimental science took shape in the home laboratories of alchemists, apothecaries, and astronomers as early as the

[50] Emily keeps the mystery of the cottage visitor to herself, while St. Aubert instructs Emily to keep the mystery of her family's history from herself. In both instances, Emily makes the decision not to share/partake in information that could have a material influence on her understanding of the world, and her place in it.
[51] Shteir 81.
[52] *Romance* 272.
[53] These types of books utilized images and text to provide varying levels of instruction for performing scientific experiments and activities.

Elizabethan era,[54] and to some extent remained in the home through the eighteenth century, when the classics and theoretical sciences dominated the Universities.[55] However, it was only through printed texts that certain types of science, such as botany and astronomy, began to be presented for practice in the home in distinctly uniform ways. Through the use of vernacular printed materials, experimental science could also be combined with theoretical and descriptive treatise, written for the non-specialist, and (often) heavily illustrated for practical use by beginners. Through these texts, experimentation as an intellectual pursuit as well as a practice became more visible and more available to a broader audience, through science books. However, those who considered plants as merely useful (for medicines or otherwise) were not philosophers, and therefore were suspect (much as the "mechanical observations" that Margaret Cavendish's bear-men speak against). Radcliffe both explores and complicates this idea in the juxtaposition of La Luc and Madame La Luc in *Romance of the Forest*, and reinforces it in the character of St. Aubert in *Udolpho*[56].

In *The Romance of the Forest*, Adeline does not begin her formal education in science until she reaches the home of La Luc. Although not large, Chateau La Luc contains two rooms dedicated solely to scientific apparatus and inquiry, along with a study and a library. "On the left of the hall was La Luc's study, where he usually passed

[54] See Deborah E. Harkness, *The Jewel House*, for a complete description of the importance of the home laboratory for the advancement of experimental science in the late sixteenth century and throughout the seventeenth century.
[55] This is not to say that experimental science was *relegated* to the home. The Royal Society provided a venue for the public performance of science by its members, but much scientific inquiry, discovery, and education still took place in the homes of scientists and learned gentlemen.
[56] I will look closer at La Luc and his sister, Mme. La Luc in chapter three.

his mornings; and adjoining was a small room fitted up with chemical apparatus, astronomical instruments, and other implements of science."[57] This detailed description of place is important; unlike the ruined abbey of the titular "forest," whose hidden places and mysteries slowly unfolded before the reader in a dreamlike fashion, the initial descriptions of Chateau La Luc allow the reader to orient the characters immediately, not only spatially, but socially. The library, the laboratory, and the hall with its windows opening up to the garden and the sky, are all organized around the social practice of science and education, in which the whole family takes part.

In Radcliffe's work, experimental sciences are presented as both intellectually and morally instructive[58]. A good example of this is the nature of the Astronomy lessons given to Clara and Adeline in *The Romance of the Forest*:

> Clara and Adeline loved to pass the evenings in this hall, where they had acquired the first rudiments of astronomy, and from which they had a wide view of the heavens. La Luc pointed out to them the planets and the fixed stars, explained their laws, and from thence taking occasion to mingle moral with scientific instruction, would often ascend towards that great first cause, whose nature soars beyond the grasp of human comprehension.[59]

In this passage, the girls are shown as choosing to spend their time in a place of scientific instruction, where they enjoy passing the time learning the fundamentals of astronomy

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[57] *Romance* 248.

[58] The broader debate about empirical science was much more contested and nuanced than what we see in *The Romance of the Forest* and *The Mysteries of Udolpho*. The tension between Hobbes (on the side of science as an introspective, philosophical pursuit) and Boyle's insistence on "objective empiricism" formed the foundation for a debate about empiricism and philosophy that extended into the nineteenth century (Lareo and Montoya Reyes 121-122). For a more nuanced discussion of this undercurrent of scientific thought in the 17th and 18th centuries, see Shapin and Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle and the Experimental Life.*

[59] *Romance* 275.

and observing the "wide view of the heavens." The moral instruction, however, does not take a central role in the girls' enjoyment of the subject, or in the subject itself, but is merely "mingled" with the scientific instruction. By foregrounding the observational nature of the science, which is dependent on the place in which the observation occurs, the moral instruction of the father becomes almost secondary, as its subjects are "beyond the grasp of human comprehension." The true lesson obtained by the girls is the social construction of knowledge, and the process of learning by observation; however, this lesson does not necessarily undermine Christian theology, and could even be argued to reinforce it by reiterating the inability of observation to grasp the "great first cause." In this scene, observation is foregrounded, while the creator of that nature is dismissed as beyond observation, and therefore no place to look for answers.

This same appended gesture towards God as a principal inspiration for scientific education can also be seen in familiar science books at the end of the eighteenth century. While the stated aim of many educational botany and general science books was "to dispose the minds of youth to an early taste for science, and to inculcate such rational and religious principles, as necessarily result from a series of reflections on the power, wisdom and goodness of God in the works of creation," it is rare to see God mentioned outside of the title pages and conclusions of science books.[60] This perfunctory inclusion

[60] Martin, V.1 Preface 2. These sentiments are echoed in prefaces and title pages of general science books that lay outside of the familiar/dialogic/epistolary genre as well. Thomas Harrington's 1774, SCIENCE IMPROVED, or the THEORY OF THE UNIVERSE. Comprehending a RATIONAL SYSTEM of the most Useful as well as Entertaining Parts of NATURAL and EXPERIMENTAL PHILOSOPHY…, states that it is "intended for the instruction and amusement of the British youth of both sexes," on its title page and in its address to the reader.

of religion signals a theoretical system in which scientific methods and observation are presented as central to learning, while religion is used as a framing device. Adeline and Clara's response to their astronomy lesson shows Radcliffe also treating the religious aspects of study as secondary to the reason that is learned. This emphasis on reason can also be seen in the passages about Clara and the flute, in which evidence is presented, instead of admonitions, and Clara must use a combination of reason and sentiment to come to the conclusion that she has been immoderate, and therefore inappropriate in her use of time.

This emphasis on observational science is reinforced at the end of the second volume of *Udolpho*, in which Emily waits on the casement for the sound of the music that she is sure comes from Valancourt (another misidentification). As she waits, Emily repeats what has become her nightly ritual: "…[she] again looked, as if for intelligence, to the planet, which was now risen high above the towers."[61] Readers may initially tie this seeking of information in the stars as a gesture toward astrology, which still retained popularity during the eighteenth century; however, in the lines preceding this quotation, we see that in this case, Emily is using the planet to determine the time, and its presence, thought at first to be an omen, retains only its connection to time when the music fails to start as expected. In this passage time is never questioned—Emily's astronomical observation is never doubted—but the identity and presence of the mysterious musician, although marked by time, is shown to be unreliable.

[61] *Udolpho* 1794 X9v.

Although this passage is followed by a rumination on "celestial sounds," which gesture towards the stated aim of many science texts of inculcating an appreciation for the works of God, Emily's engagement with the celestial is decidedly focused on the specter of her father, not "his God:"

> "It soothed him, he said; he looked up with confidence and resigned her to his God." Emily paused to weep at this recollection. "Perhaps," resumed she, "perhaps, those strains I heard were sent to comfort, --to encourage me! … Perhaps, my father watches over me, at this moment!"[62]

Familiar science narratives at the end of the eighteenth century also dealt with the relationship between nature and the divine, bringing empirical scientific methods in conversation with theology. Books such as Jackson's *Botanical Dialogues*… utilize the dialogue format to have the narrator (often the mother) bring science education in line with moral instruction by providing a religious underpinning for the natural sciences, while still insisting on empirical observation as the foundation for knowledge. In Jackson's work, the mother ends the instruction in Linnaean botany by explaining: "Meanwhile the knowledge that we have already acquired of the mechanism of plants, and of the provision made by nature for their preservation, is sufficient to lead us with grateful praise to God, the first great cause of all…."[63] The narrator then goes on to exclaim, "to whom we cannot fail to cry out, with hearts exulting with the delightful sensations of gratitude, 'The heavens declare thy glory, O God, and the firmament

[62] *Udolpho* 1794 X11v.
[63] Jackson 335.

showeth thy handy work!"[64] In Jackson's work, "the first great cause" is clearly defined as God, while the poetic exclamations of the narrator show the sublimity of studying God's works. However, much as Radcliffe, Jackson does not frame her narrative in moral language, instead leaving it to the end of the text. The effect is a type of familiar education that is permeated with empirical observation that leads to the creation of knowledge that is not dependent upon a "great first cause," but is subsequently attributed to God after the foundation for systematized knowledge formation has occurred. As Theresa Kelley notes in Clandestine Marriage, "Harriet's spirit of observation embodies the dictum that Jackson's good and rational mother insists on repeatedly: 'see for yourself.'"[65]

While *The Romance of the Forest* provides rich examples of the types of science that Ann Radcliffe's characters (and her contemporary readers) practiced at home, *The Mysteries of Udolpho* includes both instances of scientific engagement by the characters and by the author; in fact, the structure of the narrative itself can be read as a testing of empirical scientific methods presented in a contemporary botany text. *The Mysteries of Udolpho* opens with an example of the home as a site of scientific inquiry and female education. In this novel, St. Aubert, whose home is organized as a beacon of affect tempered by rationalist discourse, engages in scientific practice that is rooted in print culture and experimentation. St. Aubert is described as a "botanist avant la letter" by Jayne Elizabeth Lewis, and it is precisely his interest in botany, and in particular his

[64] Ibid.
[65] Kelley, Theresa M. *Clandestine Marriage: Botany and Romantic Culture*. Baltimore: John Hopkins University Press (2012): 104.

discourse about observation and sentiment in relation to botany, that place St. Aubert as a late-eighteenth century botanist, inspired by the work of Rousseau.[66]

Lewis, and Radcliffe biographer Rictor Norton, are two of the few scholars who have written about science in Radcliffe's work. Although, Norton only mentions it in passing: "[Ann Radcliffe's] despotic villains may last longest in our memory, but every novel contains some praiseworthy figure representing scientific liberalism; …Such figures, like many Unitarians, often follow scientific hobbies: St. Aubert studies botany, St Foix geology, and Emily is patiently a student of arboriculture (in *The Mysteries of Udolpho* three dozen different species of tree are enumerated, far more than in any contemporary novel)."[67] Consider just the beginning of *Udolpho,* in which the description of the chateau is full of specifically named trees: "There were two old larches that shaded the building… in addition to these larches he planted a little grove of beech, pine, and mountain-ash. On a lofty terrace… rose a plantation of orange, lemon and palm-trees… with these were mingled a few trees of other species."[68] St. Aubert's interest in these trees is both aesthetic and sentimental, Radcliffe tells us as much, but it is also decidedly scientific. The naming of the trees, along with the descriptions of their location, indicate a well-planned landscape in which some trees belong in a grove, while others form an exotic plantation for continuous cultivation. All of the planted trees are described as "improvements," by St. Aubert.

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[66] Lewis 234.
[67] Norton, Rictor. *Mistress of Udolpho: The life of Ann Radcliffe*. London: Leicester University Press. 1999: 20.
[68] *Udolpho* 4.

It is no mistake that these trees are mentioned by name, and that each type of tree carries its own meaning. To St. Aubert, the old chestnut tree is not just important as a childhood memory. It is also, like him, native to the land it inhabits, a part of the landscape and the history of the place. The replacement of this tree by imported Italian "upstarts" is symbolic of the loss of the land to those who have no "natural" (ancestral) claim over it—M. and Mme. Quesnel. This becomes apparent in M. Quesnel's proposal to replace the ancient chestnut from St. Aubert's childhood home with imported Lombardy poplars from his wife's native Italy. St. Aubert's response is both aesthetic and reflective of late-eighteenth century debates about exotic botany: "'On the banks of the Brenta, indeed,' continued St. Aubert, where its spiry form is intermingled with the pine, and the cypress… [the Lombardy poplar], unquestionably, adorns the scene; but among the giants of the forest…"[69] While this scene can be read as purely aesthetic, the science of botany, through which Radcliffe frames this interchange, provides us with a different reading: that of a non-native species aggressively starving out the native plants.

The attention paid to the landscape surrounding the home cannot be divorced from the descriptions of the home itself; it is the combination of these spaces that forms the botanist's "laboratory." Descriptions of architecture, likewise, must be viewed in relation to the closeness of the fields of aesthetics and the sciences during the eighteenth century. St. Aubert's scientific practice is literally built into the home: "Adjoining the library was a green-house, stored with scarce and beautiful plants; for one of the

[69] *Udolpho* 13-14.

amusements of St. Aubert was the study of botany, and among the neighboring mountains, which afforded a luxurious feast to the mind of the naturalist, he often passed the day in the pursuits of his favorite science."[70] The enumeration of plant species, along with the importance of books in the descriptions of St. Aubert, put Radcliffe's descriptions in line with the development of botany as an empirical science of ordering and describing the natural world, founded on the work of Carl Linnaeus and commented upon by authors such as Patricia Wakefield, Erasmus Darwin, and Jean-Jacques Rousseau. It is significant that St. Aubert's greenhouse is connected to the library; his study of botany is likewise connected to books not only as a medium for obtaining knowledge, and entertaining himself, but also for educating his daughter. It is tempting to make the connection between the leaves of the books in the library and the leaves of the plants in the adjoining greenhouse, which to the botanist were both tools of study. Likewise, the placement of Emily's room as adjacent to the greenhouse invites further investigation of the taming and directing of nature (in a Rousseauvian sense), and the cultivation of the child's mind. The greenhouse forms a connecting point between Emily's room, "which contained her books, her drawings, her musical instruments, with some favorite birds and plants," and the library of St. Aubert, which was "enriched by a collection of the best books in the ancient and modern languages."[71]

[70] *Udolpho* 3.
[71] *Udolpho* 3.

Like La Luc's lessons, St. Aubert's education of his daughter is dialogic, and is therefore further connected to the "familiar science" and introductory botany texts of the time, in which:

> … lessons arose from daily life and quotidian conversation, and relied on the real-world existence of concrete common artifacts and habitual activities. The dialogue form of the widespread publishing and literary genre of the 'familiar introduction' hence represented actual conversational possibilities, and can be rethought of as a set of educational practices as well as representations.[72]

In addition, St. Aubert's practice of botany is social, and includes both his family and his neighbor. At the beginning of the novel, we see St. Aubert bringing his wife and daughter on long walks into the woods around their chateau in search of botanical specimens. "He was sometimes accompanied in these little excursions by Madame St. Aubert, and frequently by his daughter; when, with a small osier basket to receive plants, … they wandered away among the most romantic and magnificent scenes…"[73] These walks constitute much of the botanical education that the reader sees in *Udolpho,* and it is not immediately obvious that they are lessons. In one of these moments, engagement with manuscript and print culture is stressed, with books being sent along in a basket of provisions;[74] However, this emphasis on book learning does not preclude the empirical knowledge to be gained from direct observation.

Radcliffe's narrative emphasizes the importance of both observation and contemplation all throughout *Udolpho*, lessons that were also pressed by Jean-Jacques

[72] Keene 55.
[73] *Udolpho* 8.
[74] *Udolpho* 8.

Rousseau and his translator, a Cambridge professor in botany named Thomas Martyn. As Martyn states in his preface to Rousseau's *Letters*, "Botany is not to be learned in the closet: you must go forth into the garden or the fields, and there become familiar with Nature herself; with that beauty, order, regularity, and inexhaustible variety… and that wonderful fitness to its end, which we perceive in every work of creation, as far as our limited understandings, and partial observations, give us a just view of it."[75] (A2r). Although lengthy, this quotation represents the philosophical connection between Adeline's experiences in the village of La Luc, and the more fully developed narrative "playing out" of the Rousseauvian ideals of education, reason and rational sensibility that we see in *Udolpho*. It harkens back to the earlier quotation about the "first great cause," while stressing the limits to our understanding of a world that we will have (at best) partial observations.

The System of Female Education

Rousseau had a profound, and well documented, impact on the representation of female education and practice of botany, through his novels *Émile,* and *Julie, or The New Heloise.*[76] These novels presented women and botany in a way that engaged directly with contemporary scientific thought and debate. His characters are presented as models for Rousseau's educational theories; In particular, Rousseau's descriptions of Julie's garden, in which "'nature has done everything,' but under the firm direction of Julie herself,"

[75] Martyn A2r.
[76] See: George, Sam. "Cultivating the Botanical Woman: Rousseau, Wakefield and the Instruction of Ladies in Botany;" Kleinau, E. "Botany and the Taming of Female Passion: Rousseau and Contemporary Educational Concepts of Young Women;" and, Pascoe, Judith. *Re-visioning Romanticism: British Women Writers* 1776-1837.

have direct implications for how we read Emily St. Aubert and Clara La Luc.[77] Less studied, however, is the influence of Rousseau's *Letters on the Elements of Botany* on late eighteenth century fiction. As indicated by the title, Rousseau's primer on botany takes the form of letters, written to a woman, explaining both the science and the "social" science of botany. Originally published in French between 1771 and 1773, Rousseau's *Letters on the Elements of Botany* was translated into English (and substantially edited) in 1785 by the botanist Thomas Martyn. Martyn's translation was immensely popular and went through at least 3 editions before Radcliffe first published *The Mysteries of Udolpho* in 1794.

As with family herbals, during the eighteenth century there were also a number of smaller format botany books, illustrated with naturalistic images for the identification of plant species. Unlike their often unwieldy, large-format counterparts, these octavo or duodecimo texts were designed to be useful for fieldwork[78]. Martyn's *Flora rustica: exhibiting accurate figures of such plants as are either useful or injurious in husbandry*, presented brilliantly colored plates of engraved illustrations, in a 5-volume octavo set printed between 1792 and 1794. The first volume alone contains 144 engravings, each of which is only accompanied by 1-2 leaves of text. It is quite slim, and easily portable. Unlike his translation of Rousseau's *Letters*, Martyn's other botanical texts were printed on thinner paper, of a poorer quality, which indicates a text that was probably less

[77] Lloyd 63.
[78] Although the books that he reads on his walks in the countryside are not named, St. Aubert specifically includes a book on botany, written by his neighbor M. Barreaux, to "provide for the mind" on their long journey to Languedoc and Provence (28).

expensive as well. However, although the weight and quality of the Letters is of a finer quality, the book is an octavo of roughly the same height as Martyn's *Flora Rustica*, and is still quite portable. Martyn was careful to warn his readers against, "these letters being read in the easy chair at home; they can be of no use but to such as have a plant in their hand…";[79] a common ideal of botanical practice was that it was good for the mind and the body, because it encouraged an active engagement with the outside world. Of course, as we shall see, the "outside world" was itself a very controlled concept, and the engagement that was encouraged was heavily directed by material ways of seeing inculcated through botanical texts.

One such text was Thomas Martyn's translation of Rousseau's *Letters on the Elements of Botany* (1785). For Rousseau, botany was about understanding and ordering the world through direct observation combined with contemplation. His *Letters* describe a method to be followed in order to obtain an understanding of not only flowers, but a system of knowledge based upon empirical evidence above all else:

> Before we teach them [children] to name what they see, let us begin by teaching them how to see. This science, which is forgot in all sorts of education, should make the most important part of it. I can never repeat it often enough; teach them not to pay themselves in words, nor to think they know anything of what is merely laid up in the memory.[80]

Scholars have connected both Wakefield and Rousseau to the eighteenth century emphasis on empirical observation in natural history, which could "be seen as a way of diverting women away from masculine knowledge, embodied in books and 'learned

[79] Martyn A2r.
[80] Rousseau 49.

languages' in the botanical texts; at the same time, however, Enlightenment modernists tended to see the way forward for science as being precisely this turning away from books towards experience."[81] According to George, "Wakefield's approach to the study of nature is informed by those dissenting notions of immediacy, utility and fidelity to observed facts," that also characterize the botanical education of Emily St. Aubert.

However, as a true Rousseuvian, Emily's father also allows her imagination to play a role in her contemplation of nature, most notably by encouraging her poem about the glow worm. St. Aubert's reaction to Emily's poem is partly influenced by his own sentimental attachment to his only living child: "Whatever St. Aubert might think of the stanzas, he would not deny his daughter the pleasure of believing that he approved them."[82] Despite his efforts to constantly foreground rationality, Emily's understanding of the natural world is filtered through her imagination—but this does not mean that it is devoid of systematic observation and reason. Early on, her poem recognizes botanical methodologies by stating the difference between dried botanical specimen (so maligned by both Rousseau and Wakefield), and "flow'rs unpressed." "But sweeter, sweeter still, when the sun sinks to rest, / And twilight comes on, with the fairies so gay / Tripping through the forest-walk, where flow'rs unpressed, / Bow not their tall heads beneath their frolic play."[83] These lines illustrate Emily's understanding of the relationship between specimens in nature, and those preserved for botanical study; however, these lines are not

[81] George, Sam. *Botany, Sexuality, and Women's Writing, 1760-1830: From Modest Shoot to Forward Plant*. Manchester: Manchester University Press (2012): 65.
[82] *Udolpho* 17.
[83] *Udolpho* 16.

devoid of imagination. The inclusion of both sentiment and fantasy in this scene puts Emily's education in line with the dominant botanical treatise published at the end of the eighteenth century, and reminds the reader that the science of observation does not preclude sentiment and imagination. In fact, Judith Pascoe describes Erasmus Darwin's *Loves of the Plants* as "a curious hybrid of detailed scientific tract and cheap romance," continuing on to say, "the poem combines sheer fantasy, in the form of supernatural machinery… and the strictly scientific."[84] Some may argue that Emily's poem has a closer affinity to Shakespeare than a botanical text, but when read in relation to Rousseau and Darwin, we can begin to see how *Udolpho* is in conversation with the major botanical treaties of her time.

In Emily St. Aubert, sensibility, imagination, and observation are intertwined. As Chard observes, "Radcliffe regularly depicts her female characters as painfully vulnerable to 'imaginary fears.'";[85] however, she also presents them as wiling and interested in proving those fears wrong through empirical methods of observation. Unfortunately, they often do not have the power, to observe closely, or repeatedly, in order to gather strong evidence; it is the juxtaposition of those "imaginary fears," fed by overt sensibility, and the very real danger that these characters face, along with the paucity (or misreading) of observed evidence that underlie the mysteries of her novels.[86] However, as tempting as it is to blame sensibility, and an overactive imagination on

[84] Darwin 199.
[85] Chard 678.
[86] This is not just a failure of the Radcliffean heroine, but a failure of the system of education that, although useful as an amusement or a distraction, was not intended to give young women agency over their own lives and fortunes (as Radcliffe's heroines attempt to do).

Emily's failure to observe properly, it is not her imagination that keeps her from discovering the truth in Udolpho. Emily's failure is not a failure of the methods of observation themselves, but an inability to practice those methods when placed in a hostile environment, outside of the gardens and protected paths of her youth, in which she is confronted by her own lack of power to observe safely: Once transplanted from her native soil, her sensibility becomes a liability.

It is not sensibility itself, but excess sensibility that is at question here. Sentimentality was not considered an oppositional force to reason; in fact, Rousseau actively promotes the notion of reason tempered with sentimentality in his *Reveries of a Solitary Walker*: "[Botany] brings together and recalls to my imagination all the images which most charm it: meadows, waters, woods, solitude and above all the peace and tranquility which one can find in these places…"[87] In the same way, St. Aubert's sentimental lessons do not entirely stand in opposition to the rationalism promoted by botany texts, and (although not always practiced) favored by St. Aubert himself. Sentiment, in Radcliffe, is far from "culpable," as Claudia Johnson asserts,[88] but rather forms the foundation for botanical inquiry, providing the impetus for scientific inquiry, while empirical observation both distracts and bounds sentimentality in rational pursuits. In a way, sensibility propels the characters forward, while empirical observation gives their path definition and form.

[87] Quoted in King 49.
[88] Johnson 102.

Although sentimental lessons were not an anomaly in late eighteenth-century education, they were being questioned. Hannah More addresses the lack of balance in "the prevailing system of female education" at the end of the eighteenth century, as encouraging "the feelings" at a pace, according to Moore, "much faster than the understanding can be opened and the judgment enlightened."[89] More might just as well have been talking about Emily St. Aubert, for whom sentiment dominates the early part of the narrative, while later that sentiment (although not effaced) is tempered by contemplation and rational explanations. This evolution of the heroine reflects education in botany and the familiar sciences at the end of the eighteenth century.

The Narrative Impact of Rousseau

Rousseau's *Botanical Letters*, along with his novels, formed an important roadmap for the system of education that promoted a rational engagement with the natural world that was focused through (or tempered by) sentiment. We have already traced Rousseau's influence on the early education of Emily St. Aubert, but we have not yet seen how the Letters may have had a much larger impact on *The Mysteries of Udolpho*: informing key plot points. In fact, it could be argued that much of *Udolpho* can be read as an extended "playing out" of Rousseau's botanical treatise in the form of a

[89] Lynch, Deidre Shauna. "'Young ladies are delicate plants': Jane Austen and Greenhouse Romanticism." *ELH* 77.3 (Fall 2010): 689-729. For further insight into the response to female education at the turn of the nineteenth century, see Hanna More's *Strictures on the Modern System of Female Education*, and Kathleen B. Grathwol's "Maria Edgeworth and the 'True Use of Books' for Eighteenth-Century Girls." In *New Essays on Maria Edgeworth*, ed. Julie Nash. Burlington, Vt.: Ashgate (2006) 73-92.

Gothic narrative that both expands upon, and comments on Rousseau's ideas about education and observation.

In letter I of Rousseau's *Letters*, the narrator observes: "You see that this is not a mere labour of the memory, but a study of observation and facts…"[90] This emphasis on observation and facts also structures the narrative arc of *Udolpho*, in which the heroine, besides being instructed in botany by her father, is continually reminded to temper her sensibility, and rely on reason to guide her actions. And for the most part she does—against all odds—thanks to her early education.

St. Aubert is the ultimate Rousseauvian botanist, strictly observing the narrator of the *Letters*' dictate to "unveil to her [daughter] by degrees no more than is suitable to her age and sex, by directing her how to find out things of herself, rather than by teaching her."[91] When St. Aubert is dying, he does just this, instructing Emily to burn certain of his letters that would have explained key information about her family. Instead, Emily must rely on the (primarily botanical) education provided by her father to figure things out for herself through the act of observation. Unfortunately, her education (and perhaps all familiar education) does not translate outside of the context of polite conversation and domestic activities; because of this "incomplete" form of education, Emily fails to discern the truth of her situation at the castle of Udolpho through direct observation. Instead, she makes a series of assumptions, based upon the types of unsound evidence that Rousseau warns against. In this way, Emily is not the botanist that her father was;

[90] Rousseau A3r.
[91] Rousseau A3v.

however, she has learned the tools of botany, and insists upon observing the mysteries of her surroundings herself.

Emily's empirical education forms the framework for her exploration of the Castle of Udolpho. Having gotten lost one night, Emily encounters a mysterious portrait locked away in a forbidden room, behind a veil. The forbidden nature of this knowledge echoes the debates about the propriety of botany at the end of the eighteenth century, but more importantly, it provides the reader with a glimpse at the intellectual framework for all of Emily's exploration of her surroundings. Emily's interest in the mysterious "picture" behind the veil comes before she has heard anything about it. It is immediately interesting to her, because it is unlike the examples that surround it: "The singularity of the circumstance struck her, and she stopped before it, wishing to remove the veil, and examine what could thus carefully be concealed…"[92] Emily's immediate desire is to "examine" the picture herself, but Annette removes the necessary light, both figuratively and literally, when she introduces the rumors of the dark, and potentially dangerous nature of the object, and then walks away holding the candle with which they were lighting their way.

It is through the portrait of Laurentini—and the wax figure that forms the central "mystery" of Udolpho—that Emily attempts to better understand her own danger. However, by seeking knowledge from pictures and facsimiles, she violates Rousseaus injunction against drawing conclusions from anything other than a living example: "To

[92] *Udolpho* 233.

know a plant well you must begin with seeing it growing. A … collection of dried plants may serve to put us in mind of the plants we have once known; but gives us only a poor knowledge of those which we have never seen before."[93] Just as Rousseau warns against classifying a plant based upon pictures and dried specimen, Radcliffe's Emily St. Aubert shows readers the danger of attempting to identify a body based upon a portrait, and a specimen that turns out to not be of (or even based upon) the original subject that the viewer is seeking. So, while Emily faithfully follows Rousseau's directions to examine what lies behind the outer veil of an object of study, she neglects his later lesson that, "by a second examination of the same plant, you would prevent a like [misidentification] another time."[94] An injunction echoed in the explanation of the narrator at the end of the novel, who states:

> Emily, it may be recollected, had, after the first glance, let the veil drop, and her terror had prevented her from ever after provoking a renewal of such suffering, as she had then experienced. Had she dared to look again, her delusion and her fears would have vanished together, and she would have perceived, that the figure before her was not human, but formed of wax.[95]

It is not death that Emily reacts to when she sees the "body" behind the curtain; she has seen death: that of her mother, father, and she will see death again (and react in a much more measured way). If St. Aubert's case is any indication, Emily would have had intimate knowledge of corpses from death to burial. Instead, it is the narrative of usurpation, of stolen property rights and being locked away—in life and in death—that

[93] Rousseau F6r/v.
[94] Rousseau D7v.
[95] *Udolpho* 662.

causes Emily to lose her senses. It is the very threats that she faces from Montoni that she reads into the story of Lorentini, and projects onto the figure behind the veil.

Even with a Rousseauvean education, the very real threat of bodily harm pushes the heroine's sensibility to extreme limits, resulting in an imbalance between observation and imagination. In this scenario, empiricism is utilized to trace observed evidence to fantastical conclusions. In peril, Emily does not lift the veil again, she does not look closely, or even look twice. The threat of danger—both real and imagined—is too great; this is the gothic model at work, in which mysteries are attended by real dangers, along with those imagined. This stands in stark contrast to other late eighteenth-century novels, such as Edgeworth's *Belinda,* in which the discovery of mysteries comes with no danger to the heroine. Instead, Belinda is allowed the distance and the space (of the home) to look closely, and the help of others to gather clues that she would otherwise not have access to. Radcliffe's heroines' have the same advantage of an education in the polite sciences as Edgeworth's, but the landscape in which they are expected to apply their knowledge is vastly different.

The true narrative impact of Rousseau on the gothic literature of Ann Radcliffe is the implicit failure of his system of education in the face of current social possibilities for women. In Radcliffe's work, the gothic cusp provides the tension between past and present, in the form of locations in which empiricism is tested and fails, due to a system of education that requires that the learner be "initiated into mysteries," that she will never be allowed to fully explore (*Letters on Botany* A3v). In other words, Emily fails to uncover the truth due to the powerlessness of rational thought in the face of feudal power

structures.[96] At his death, St. Aubert sees the flaws in this system, lamenting that he must leave his daughter vulnerable to a world whose mysteries she does not understand. However, it is he who first withholds vital information, and who perpetuates the attenuated system of education that leaves her vulnerable when he chooses to leave her with an aunt who encourages Emily to reach conclusions based upon first appearance, rather than examining closely the observable facts before making decisions. In Radcliffe's world, familiar science opens up the possibility of a world of mysteries; however, social conditioning only allows domestic education to go so far.

The entire plot of Udolpho is propelled by misidentification of people through a failure to observe carefully, or to draw appropriate conclusions from empirical evidence. The miniature in her father's study, DuPont's appearance at Udolpho, and the dead chevalier behind the veil (mistaken for her Aunt—after the earlier misidentification of the wax figure for the former Mistress of Udolpho) all inform Emily's actions in some way.[97] This is made clear in the decidedly rational tone of the explanation at the end of *Udolpho,* an explanation that Johnson reads as bathetic.[98] Rather than anti-climactic, however, the explained supernatural is perfectly in-line with the types of explanations found in familiar science books at the end of the eighteenth century, in particular Martyn's translation of

[96] The narrator refers to Emily's collation of evidence that would have led her to the truth about the wax figure: "The ceremony of the veil, however, and the circumstance of the doors having been left open, even for a moment, had occasioned her much wonder and some doubts; but these were not sufficient to overcome her suspicion of Montoni; and it was the dread of his terrible vengeance, that had sealed her lips in silence…" (S9v).
[97] Emily does not always fail to observe closely, however, and her later correction of the misidentification of her aunt for a dead ruffian killed in a fight at Udolpho, shows how she is both capable and willing to "look again," when given the opportunity.
[98] Johnson 97.

Rousseau's *Letters on Botany*. In this way, Radcliffe's novels, as well as her characters, emerge as much from the genre of familiar science as the Gothic, or Romantic. The failure of the heroines to uncover the mysteries before them then is either a failure to observe closely, or the failure of a social structure that encourages a system of education that was never meant for practical application outside of the home.

In both *The Romance of the Forest* and *The Mysteries of Udolpho,* Ann Radcliffe presents the home, organized around the practice of science and an engagement with books and nature, as an important element in the growth of the heroines as rational, acting members of society. Although Adeline and Emily encounter science education at different times in their development, the inculcation of empirical observation essential to a late-eighteenth century scientific education, becomes a foundational aspect of their growth as characters. Ann Radcliffe takes this idea of empiricism as a way of viewing the world a step further in *The Mysteries of Udolpho,* questioning the efficacy of such an education by showing what happens when a young woman, who is trained in botanical science, is then transplanted to spaces and places where she will be tested on her ability to gather and analyze empirical knowledge outside of the guided and controlled observations of her early education. These Gothic spaces function less as a temporal shift than as a concrete marker of the social and cultural rifts between advances in science and education, particularly for women, and the opportunities to use that education as something other than an ornament for polite conversation.

In Emily's case, her early education in identifying plants based upon their outward properties is no insurance against later misunderstandings, when incomplete or

misunderstood empirical observation leads her to drastically wrong conclusions. It would be worthwhile to look closer at other instances of misidentification in *Udolpho*: the figure behind the curtain, the blood on the tower stairs, and the misidentification of Du Pont, as instances of failed empiricism. In many ways, these examples test the early education of the heroine, by presenting her with seemingly supernatural occurrences that could be solved by empirical observation and rational thought. The fact that she fails to identify them for what they are at first is further demonstration of the necessity for close, or repeated observation in learning, informed by sentiment, promoted by Rousseau in his *Letters on the Elements of Botany*. It is also an indictment of a system of education that encouraged women to explore their world through science, while many were denied opportunities to participate in the greater culture as thinking, rational beings. In this way, Radcliffe's commentary goes beyond a repetition of Rousseau's ideals about education: She actively questions the good of this system of female education in the face of feudal social practices that at best inhibit a woman's reason, at worst, work against it.

Emily's curiosity is not idle; she follows clues to the blood on the stairs and the "mystery" behind the veil in an act of seeking information that can help her make an informed decision about what kind of person her captor/protector/legal guardian is. Once she has gathered enough information to begin to identify him (his type) she will use this evidence to make informed decisions about how to act with this impenetrable character. However; she misses several important clues along the way because she is not trying to identify the "mystery," or even the many other potential mysteries that abound in Udolpho; rather, she is focused on identifying one preconceived subject, who she hopes

will give her a clue as to the character of Montoni. In this investigation, she begins with faulty evidence obtained from stories told by the servants; she then concentrates so fully on a narrow goal that she is not able to apply the broader lessons of repeated observation, close observation, and deductive reasoning that form the foundation of Linnean botany. But most importantly, she misses the ultimate goal of the Rousseauvean education: to understand the object of your study in relation to nature, and therefore to understand better your own place in the world. Identifying the object of inquiry is only the first step, it is not the end goal of a scientific education in Radcliffe's novels; it is this final step, the system of seeing and utilizing evidence to draw conclusions about the world around you, becomes the true legacy of Emily's misreading.

Unfortunately, Emily did not have access to—and was not taught to think about—the application of her knowledge to the broader world outside of her valley.[99] In this way, Radcliffe shows education in the home to be an act of domestication, not empowerment, when she places her heroines in gothic spaces in which the social reality of their powerlessness is made clear. These women can search for clues and attempt their own escapes all they want, but without the help of men, their education and intelligence carries little weight outside of their country homes. The "gothic cusp" then functions to show us how incompatible the system of familiar scientific education actually is with the (essentially) feudal systems of marriage and property rights, upheld not by the father (in

[99] Although this may have been part of St. Aubert's aim in traveling with her, his final illness (and his own misreadings along the way) precludes a continuation of her studies.

Radcliffe's novels), but by social structures that work against women having the power to utilize their own education in a meaningful way.[100]

This does not mean that scientific education is not important to *Udolpho* and *Romance*. By looking at botany and familiar science texts of the late eighteenth century we can begin to see how complex Radcliffe's heroines really are. Although they struggle to balance reason and sentiment, empiricism and imagination, in many instances they succeed. Regardless of their ability to fully utilize their education, these heroines work tirelessly to seek out information in the oppressive gothic spaces in which they are imprisoned, and use that information to guide their actions and behaviors. It is not solely a failure of Emily's that the mysteries must be solved by the narrator at the end of the novel, nor are Adeline's supernatural visions a distraction from (or irrelevant to) her ultimate role in bringing her father's murderer to justice. Both heroines use the tools that they have to try to understand the worlds that they are thrust in to. It is the disconnect between their education and the greater world in which they find themselves that is the root of the misidentifications.

The Power of Domestic Science in Edgeworth's *Belinda*

Unlike *The Mysteries of Udolpho*, *Belinda's* mysteries are solved by the heroine, in a way that shows the reader how domestic sciences could be applied to even the most

[100] Claudia Johnson discusses the propensity of Radcliffe scholars to read the gothic landscapes and conflicts as symbolic, rather than representing still-existing structures, both physical and social: "And much of the best criticism of Radcliffean gothic has been psychoanalytic, at least in part because it has been so easy to believe that decaying castles could not possibly represent actual, material features of the European countryside inscribing the still surviving feudal past, but instead must represent and inward landscape sealed off from history; and that heroines' conflicts with fathers or guardians obviously reflect not anxieties about property rights…" (76).

perplexing "mysteries." The novel itself employs many of the same types of mysteries that *Udolpho* does: the secret passageway through which intruders (invited or not) could enter the lady's chambers unseen, the suffering and moaning heard from a locked chamber, the superstitious servant, and the ghostly figure outside the bedroom window. It also employs similar educational practices to those seen in *Romance*: the young lady, fleeing from oppression, finds herself in an idyllic domestic space in which all members of the family are encouraged to participate in scientific education and discovery through discussion and direct observation.

Belinda's education with the Percival family is not just symbolic; like *Romance* and *Udolpho*, the heroine's understanding of scientific principles and methods does more than establish her character: it is important to the plot. In the novels of both Radcliffe and Edgeworth, scientific observation forms the foundation for how the heroine understands the world around her. While Radcliffe's heroines are not always successful at applying the empirical observation learned in their familiar science lessons, Belinda is able to seamlessly incorporate not just lessons, but observations of science in practice, to unravel the mysteries in her eponymous novel.

The most profound instance of Belinda's success at applying scientific observation to a seemingly supernatural circumstance comes when Juba, a servant to Belinda's would-be suitor Mr. Vincent, becomes distressed to the point of possible derangement: "…he told that the figure of an old woman, all in flames, had appeared to him in his bedchamber at Harrowgate every night,…"[101] Mr. Vincent responds to Juba's

[101] Edgeworth 221.

story with derision and laughter, only finding his "humanity" after Juba has fainted from his terror. In fear for his servant's life, Mr. Vincent recounts the story to Belinda, who immediately "recollected having seen a head drawn in phosphorous, which one of the children had exhibited for her amusement…,"[102] and hypothesizes that some similar manifestation may explain the mysterious figure. Belinda's immediate connection of the details of the story to her own observation in the course of learning about phosphorous shows a seamless transfer of skills obtained through familiar science in the home to a seemingly supernatural occurrence. Her recourse to not just the methods of empirical observation, but to an actual instance in which the tools of scientific education were used for both learning and entertainment, stands in stark contrast to Emily St. Aubert's response to the servant's stories about the black veil. However, Belinda does not have the disadvantages that beset Emily from the beginning of her journey from home. While Belinda does suffer some social uncertainty, she is never threatened with bodily imprisonment and harm.

Like Radcliffe's novels, Edgeworth's *Belinda* cites scientific knowledge in a way that is intimately tied to spectacle and the supernatural. This connection between science and spectacle is not exclusive to literature, and in fact played an important role in what we would now consider non-fiction science books. In John Imison's *Elements of Science and Art: Being a familiar introduction to natural philosophy and chemistry,* the science of chemistry is presented as both practical and entertaining, at times with a spooky twist. For instance, in the section titled: "To make Phosphoric Oil," the reader is first presented

[102] Edgeworth 222.

with a formula for making the compound oil in a straightforward and clinical tone. "Put one part of phosphorus into six of olive-oil, and digest them over a sand heat. The phosphorus will dissolve. It must be kept well corked."[103] What follows this formula, however, sounds like it could have easily been the inspiration for the obeah-woman episode in *Belinda*:

> This oil has the property of being very luminous in the dark, and yet it has not sufficient heat to burn any thing. If rubbed on the face and hands, taking care to shut the eyes, the appearance is most hideously frightful; all the parts with which it has been rubbed, appear to be covered with a very luminous lambent flame of a bluish colour, and the mouth and eyes appear in it as black spots. There is no danger attending this experiment.[104]

As we can see, science and horror were not merely the purview of Gothic literature (and those who would use Gothic elements in their novels). Spectacle and the supernatural were built into scientific experimentation, through popular primers aimed at a general audience.[105]

When we read this passage in relation to Juba's reaction to the phosphorous apparition in *Belinda*, we can see how science education had important practical applications for not just inculcating a way of seeing, but a way of reacting to information as well. In this scene, it is only the servant who loses his senses; because he has not been educated in the polite sciences, he is unaware that "there is no danger attending this

[103] Imison FF1r.
[104] ibid
[105] The "familiar" format, although not always in letter or dialog form, by its nature was aimed at a non-specialist audience.

experiment," and is therefore more susceptible to superstition.[106] The heroine, on the other hand, is unfazed by the seemingly supernatural circumstances, and develops a plan that (unlike Emily St. Aubert's ill-fated plan to uncover the mystery of the Marchioness' chamber) both solves the mystery and catches the culprit. Here we see the heroine not just using information that she has obtained, but outlining what can be clearly recognized as a scientific method to solve the mystery that goes beyond mere investigation. Her plan is a multi-step empirical trial of a hypothesis: beginning with a test of her notion that it was indeed a phosphorous image that Juba has seen. Once this is established, "Belinda then suggested that one of the children should show him the phosphorous, and should draw some ludicrous figure with it in his presence. This was done, and it had the effect that she expected. Juba, familiarized by degrees with the object of his secret horror, and convinced that no obeah-woman was exercising over him her sorceries, recovered his health and spirits."[107] The emphasis on empirical education in this scene extends to the heroine's solution, which mirrors Emily's desire and attempts to also solve the mystery of the veil and the mystery of the Marchioness' chamber through her own observations. However, where Emily fails, Belinda succeeds. And not only in solving the mystery, but in teaching the afflicted servant how to familiarize himself with the same methods of observation, leading him to become less superstitious. Scientific education in Belinda has a palliative effect on the imagination and contributes to social order.

[106] Imison FF1r.
[107] Edgeworth 222.

One of the values of looking at *Belinda* in relation to *Udolpho* and *Romance* is that we can see more clearly how the gothic elements of Radcliffe's novels function to illuminate how the power structures inherent in land-rights and marriage systems at the end of the eighteenth century were at odds with a system of education that taught women to see and draw conclusions for themselves. The vulnerable position of Radcliffe's heroines stands in contrast to the relatively protected position of Belinda. A comparison between the two allows us to better understand the way in which Radcliffe uses the emergence of a modern order to comment upon the disconnect between evolving systems of education and the deeply entrenched systems of marriage and property still prevalent among the landed gentry. By showing how ineffectual empirical observation is when the observer is being socially or politically repressed, Radcliffe provides a fascinating commentary on the idea of science as an "accomplishment," and the difficulties for women of practicing a system of scientific observation that in many ways was undermined by the social structures in place at the time.

The critique of weakness has so often fallen on the shoulders of the "Radcliffean gothic heroine," that it is difficult to reframe. But reframe her we must. Emily St. Aubert is not allowed to solve the mystery of the veil, but she ultimately uncovers the true mystery of Udolpho: the story and fate of Lorentini, and contributes to the unraveling of many of the other mysteries in the novel: the visitor to the woodsman's cottage, the ghostly nighttime singer, the presence in the former Marchioness' chamber, among others. Each of these discoveries is only uncovered through repeated observation that comes with a risk in the Gothic mode. Despite this risk, and despite her "overwrought"

senses, she eventually gathers the information that she needs to piece together an understanding of many of the mysteries that seem to threaten her. Each of these discoveries stabilize Emily's relationship to the people and the world around her: they allow her to uncover other, vital information that helps her understand her history, escape the danger of usurpation and death, and protect her friends from invaders in their home.

When her last instance of misidentification (that of Valancourt's true character) is finally resolved, Emily is able to return to the place of her upbringing, the place where her education began. La Valle represents a balance between science and the supernatural, where paternal ghosts inhabit the same space as green houses and scientific instruments. Emily reclaims this space as a woman who has worked tirelessly to solve the mysteries of her family's (and her lover's) past, and who has claimed agency over her own estate and marriage.

By integrating these moments of everyday science into her narrative—and making it integral to the development of her heroines—Radcliffe stakes a claim for Gothic literature as more than just "hobgoblin romance." Instead, she comes down on the side of both reason and imagination, following the Romantic ideas of authors like Rousseau and Erasmus Darwin that observation must be filtered through sensibility to create meaning. The fact that most scholars (and perhaps most readers) miss the science in Radcliffe speaks to our prejudices about what constitutes science—including who is allowed to practice science, and where that practice should take place. It is no mistake that Radcliffe's heroines learn science in the home; this was both a common, and a contested practice during her day. The debate about female "accomplishments" vs. education was

one that many authors of the time ignored, so Ann Radcliffe's engagement with it, along with her deep exploration of empiricism, agency, and the lingering social structures of inheritance and marriage, are all the more meaningful. Radcliffe may be known for the "explained supernatural," but one of her most fascinating contributions to Gothic literature was the combination of science and the supernatural, sentiment and reason.

Chapter 2

"This strange doctor that no body knows": The Medical Marketplace and Anatomy in *The Romance of the Forest.*

During the time in which Ann Radcliffe lived and wrote, medical services were provided by a number of different types of practitioners, from physicians, who were university educated and sought to direct and control the practice of medicine in their jurisdictions; to surgeons, who performed both surgery and anatomy, and who often worked closely with physicians; to apothecaries, who mixed (and fought for the right to prescribe) medicines. In addition to the aforementioned recognized professions, unlicensed empirics and women of all classes practiced medicine in the home and on the streets in both town and country. Together, these disparate types of medical generalists and specialists formed the foundation of the medical marketplace in eighteenth-century England, a constantly evolving and shifting system of medical practices and practitioners, processes and philosophies, undergirded by a print culture in which health and medicine were key characters used to talk about a variety of philosophical and social "ills," along with physical, or embodied, ones.

Ann Radcliffe's engagement with the medical marketplace centers on issues of authority, education, and power in relation to medical practices. While her most deeply "gothic" and supernatural moments can be related directly to presentations of the body in the practice of anatomy, she counterbalances these moments with interludes involving the practice of medicine in small towns. By highlighting references to contemporary medical

debates in *The Romance of the Forest* we can see how Radcliffe engaged with the scientific dialogues in print and visual culture at the time. It is my belief that Radcliffe's presentation of anatomical knowledge and the practice of physic in *The Romance of the Forest* shows a sophisticated understanding of the medical and scientific knowledge and debates of the time, both on the part of the author and her heroine.[108]

In the previous chapter, I explored the idea of the home as a space in which certain types of scientific education flourished during the eighteenth century. Besides the botany, chemistry, astronomy, and other familiar sciences taught to young women and men during this time, there was a strong culture of medicine practiced in the home as well. This "domestic medicine" was closely tied to botany and chemistry through the many remedies and compounds that abounded in printed family herbals, cookbooks, almanacs, pamphlets, and in periodicals as well as manuscript culture during the time.[109] Women were the primary practitioners of physic in the home, and this connection between gender and domestic medicine can be seen in Ann Radcliffe's *Romance of the Forest* in which women are shown both making decisions about medical care, and practicing medicine.

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[108] A note on terminology: I am using the word "physic," in the way that seventeenth and eighteenth-century texts use it, to include a broad range of medical practices, including those of the medical doctor, the physician, the apothecary, and any number of other "unauthorized" practitioners. Radcliffe's understanding of the medical marketplace, and the practice of medicine in general, may have had very personal origins. According to her biographer, Rictor Norton, Ann Radcliffe had close family ties to some of the most outspoken—and arguably some of the greatest—medical practitioners and anatomists of the eighteenth century (14).

[109] Although botany and chemistry were both considered acceptable forms of scientific practice for women at the end of the eighteenth century, this acceptance was often qualified. In her reading of Maria Edgeworth's 1795 *Letters for Literary Ladies,* Amy King cites the elevation of chemistry in Edgeworth's text as an implicit attack on the "fashion" of botany; however, chemistry—and chemical medicine in particular—were not viewed entirely without distrust.

Although we will later see Adeline—the heroine of *Romance*—making complex medical decisions for another, she herself also plays the role of patient at one point in the narrative. After her second escape from the Marquis, Adeline finds herself in the village of La Luc, a country "pastor," or curé, in whose home she will continue her education in familiar sciences. Upon her arrival in the village, Adeline falls ill with a fever, which threatens her health and safety. At this time, the reader is informed: "Her kind hostess did every thing in her power to relieve her, and there was neither physician nor apothecary in the village, so that nature was deprived of none of her advantages."[110] This lack of medical attention, although superficially lauded by the narrator, proves to be to Adeline's disadvantage, as her illness progresses rapidly. It is only after Adeline has "sunk into a state of stupefaction" that Adeline is transferred to the home of La Luc for medical care by Madame La Luc. Madame is described as an elderly lady who shows "tender interest" to Adeline; more importantly, however, it is Madame La Luc who gives Adeline the medicine that appears to make the difference in her illness. "The lady now quitted the room for a medicine; having given which to Adeline, the curtain was closed, and she was left to repose."[111] This early scene is pivotal for establishing Madame as a healer, because she not only administers medication (which she has ostensibly prescribed), but she also is seen clearly taking charge of Adeline's care. In fact, before Madame administers the medicine, she asks Adeline to "submit… to everything that may conduce [her recovery]" to which the patient assents.[112] This request for consent, along with Adeline's assent, puts

[110] *Romance* 243.
[111] *Romance* 244.
[112] *Romance* 244.

these two women in a patient/caregiver relationship before Adeline even knows Madame's name. Mme. La Luc's medical authority is established in this moment, and it is within this framework that we must read her subsequent description and actions.

After this introduction to Madame La Luc and her niece Clara, Radcliffe gives a brief account of "The Family of La Luc," which includes a detailed description of the home as space (much as we saw at the beginning of *Udolpho*). What is unique about this home is the description of Madame La Luc's workshop, from which "the whole village was liberally supplied with physical comfort."[113] In contrast to La Luc's study and laboratory, which is never described as private, Madam La Luc's room is immediately framed as an exclusive space with a defined use: "On the right was the family parlor, and behind it a room which belonged exclusively to Madame La Luc. Here were deposited various medicines and botanical distillations, together with the apparatus for preparing them."[114] Not only is Madame prescribing and administering medications, but she is preparing them as well. As we shall see, home-made herbal remedies were not uncommon during the eighteenth century; however, Madame does not just use the botanical distillations that were described in many herbals at the time, but chemical preparations as well.

Mme. La Luc derives her identity from her practice of physic, and the sciences that support that practice: sciences which are performed in private, away from the view of others. This picture of the lone scientist, working in a secluded laboratory to prepare

[113] *Romance* 248.
[114] Ibid.

secret compounds is reminiscent of the descriptions of alchemists in the seventeenth century, and prefigures Mary Shelley's Frankenstein in several important ways: first, it presents certain types of science as private acts of individuals; and second, it foregrounds the "gothic" scientist as a figure whose work is done in isolation. However, unlike the later character of Frankenstein, Mme. La Luc's practice of science has a specific social function, and is tied to the family both spatially and in its application; her room, while "private," is still a part of the family home. As Steven Shapin and Simon Schaffer tell us, "The experimental 'laboratory' was contrasted to the alchemist's closet precisely in that the former was said to be public and the latter a private space" (57). Mme. LaLuc's space is described as private in a way that makes it stand out when compared to the public spaces of the home.

Despite the apparent symmetry in the organization of their laboratories within the house, Radcliffe maintains a hierarchy of scientific practice that places Mme. La Luc's scientific authority below that of La Luc. This hierarchy is established and reinforced through a series of clues within the narrative. Although she is the sole practitioner of medicine in the village, Mme. La Luc's practice of apothecary is decidedly questioned and, at times, satirized by Radcliffe. The fact that Madame's room is specifically described as an "exclusive" space, that is located "behind" the family parlor, creates a sense of her practice of medicine as somehow unsanctioned, experimental, or secret. This is reinforced by the contradictions surrounding her recognition as a practitioner of physic in the various descriptions of La Luc's village, and of her own work. For instance, when we are told that "there was neither physician nor apothecary in the village, so that nature

was deprived of none of her advantages," the reader is alerted to the debates surrounding the practice of medicine during the eighteenth century.[115] Although this statement is followed by Mme. La Luc administering medicine, it also functions to undermine Mme. La Luc as a medical practitioner: first, by denying her existence as such, and second, by indicating that a physician or apothecary would be an undesirable presence, acting as a foil to nature.

Female medical practitioners were recognized in print as both vital and dangerous forces in eighteenth century England. While female practitioners were sometimes lampooned, or lumped together with "quacks," a wide variety of family herbals were printed in London between 1780 and 1790, some of them in less expensive quarto or octavo editions that would have been accessible to a broad range of literate women. One such herbal, *The New Family Herbal; or, Domestic Physician: Enumerating, with accurate descriptions, all the known vegetables which are any way remarkable for medical efficacy; with an account of their virtues in the several diseases incident to the human frame*, includes fourteen leaves of plates "of the most remarkable plants, accurately delineated and engraved," that would have had a practical use for women practicing herbal medicine. As a quarto format herbal, intended for home use, the inclusion these images, which are touted as accurately delineated, speaks to the overlap between the science of botany and the practice of apothecary during this time. It is no mistake that botany was encouraged as a suitable subject for the education of young

[115] *Romance* 243.

women, both in Radcliffe's novels, and in English society during the eighteenth century—despite its sexual implications.[116] Not only would a knowledge of botany allow women to attain the Rousseauvian ideal of the politely educated mate, but it would also help them to take care of their families: The accurate illustrations in the herbal would have helped the reader identify and gather plants that existed in their vicinity, while the accompanying text explained how to prepare and administer poultices, fomentations, tinctures, and other herbal preparations.

In addition to these smaller family herbals, there were also sumptuously illustrated folio herbals, such as Elizabeth Blackwell's *A Curious Herbal, containing five hundred cuts, of the most useful plants, which are now used in the practice of physic. Engraved on folio copper plates, after drawings taken from life* (1782). This text, printed in two volumes, includes "a short description of the Plants; and their common uses in Physic," and was sold in a bookshop on the Strand. Often, female practitioners of physic were aristocratic women who saw it as a duty to administer medical care along with the other forms of charity that they performed. Printed herbals and medical texts written for non-specialists were essential to the practice of these women, many of whom lived in the countryside, like Madame La Luc, where physicians and surgeons were not always available. So, when we are told that "from this room the whole village was liberally supplied with physical comfort; for it was the pride of Madame to believe herself skilful in relieving the disorders of her neighbors," we can place Madame La Luc's knowledge

[116] For an example of how botany was written about for young women, see Priscilla Wakefields 1796 *Introduction to Botany*, which took the form of a fictional dialogue in letters. For the sexual implications of botany, see Erasmus Darwin's poem, "The Loves of the Plants," from *The Botanic Garden.*

of herbal and chemical remedies in the context of the print culture that informed the medical marketplace of the time.[117]

The qualification of Madame's scientific practice with the phrase "believe herself skillful," however, casts doubts onto her qualifications and her efficacy as a healer, placing her in the realm of a different conversation-in-print, that of the unrecognized medical practitioner. Tracts speaking out against "quacks" and "lady doctors" also abounded in the eighteenth century; they were often written by doctors or surgeons, who sought to bolster their own position in the medical marketplace by undermining popular (and often more affordable) unlicensed practitioners of physic.[118] One such doctor/author, James Makittrick Adair, advertised the inclusion of "An Essay on Quacks, Quack Medicine, and Lady Doctors" on the title page to his 1772 *Medical Cautions… Containing Essays on Fashionable Diseases.* Although he is careful to state that not all female practitioners are harmful in his book, Adair's title page creates a visual rhetorical connection between "lady doctors" and "quack medicine" that undermines the work of female healers and home remedies. This linguistic grouping of female healers and quacks speaks to the greater cultural fears about medical safety, class and gender boundaries during the eighteenth century.

Madame's role as a medical practitioner is both expanded and rendered more complex when, during the narration of the departure of La Luc's son from the village, we

[117] *Romance* 248.
[118] See James Makittrick Adair, M.D.'s 1772 *Medical Cautions… Containing Essays on Fashionable Diseases*…, which includes "An Essay on Quacks, Quack Medicine, and Lady Doctors."

are told that Madame supplied him with "a sufficient quantity of medicines," explaining their application, "but she was careful to deliver her lecture during the absence of her brother."[119] La Luc is presented as tolerant of his sister's medical practice; however, as this quotation illustrates, Madame functions outside of the proscribed role for female practitioners of physic in a way that she is aware that her brother would not approve of. For example, in this passage the use of the term "lecture" to describe Mme. La Luc's interaction with her nephew places her in the position traditionally reserved for university educated physicians: that of providing not only medicine, but medical knowledge. In this way, she acts as both medic and teacher, apothecary and family herbalist. So, while Chloe Chard cites Rousseau's *Rêveries* to present Mme. La Luc's practice of botanical sciences and physic as "prosaic" in her endnotes to *The Romance of the Forest,* we can see that Mme. La Luc's engagement with the sciences is far from ordinary.

Further, the scientific books in print at the end of the eighteenth century challenge the idea that there was any "ordinary," or at least any uncontested practice of science by women at the time; Ann Radcliffe recognizes this in her character of Madame La Luc. Although idealized accounts of female education may outline botany and home remedies as acceptable subjects for women to study, Madame pushes the boundaries of propriety by practicing these sciences in private, and at times, in secret. This stands in contrast to

[119] *Romance* 254.

the gentleman in Radcliffe's novels, whose lectures are public, and whose practice of science is presented as largely unproblematic.[120]

Despite her contested position, Madame La Luc is the only person to practice physic in her village; therefore, it is to Madame that La Luc turns when his daughter is injured on a runaway horse, and a young chevalier dislocates his arm trying to save her. It is worth noting that although he relies on her, La Luc's trust in his sister's abilities is born of necessity: "Clara was carried into the house, and La Luc would have sent for a surgeon, but there was none within several leagues of the village, neither were there any of the physical profession within the same distance."[121] Because of the lack of surgeons or physicians near the village, "Madame La Luc undertook to examine the wounds," and "the result restored peace to the family."[122] This scene shows how important Madame's knowledge is to her family. She is responsible for not only restoring health in the village, but for reassuring her friends and neighbors in medical matters as well. Although she may not be the first choice of a concerned father, Mme. La Luc is clearly effective in her role as "lady doctor."

Clearly, Madame is the most competent person in the village to undertake such an examination and to treat the patients, but this does not mean that her status as a medical practitioner is not undermined at the same time. Her role as physic and apothecary, then,

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[120] During the eighteenth century, empirical sciences relied on a system of witnessing, not repeatability, as proof. Because of this, many experiments were practiced in "public," that is, in front of an audience; this audience could have been of mixed gender, and even mixed class, but would have included other "men of science," who could verify the results. In *Leviathan and the Air Pump*, Shapin and Schaffer discuss the importance of witnesses to the validation of knowledge gained through experimentation.
[121] *Romance* 267.
[122] Ibid.

is a liminal role that is at times sanctioned and used, but not fully recognized in the greater medical marketplace. In other words, although the narrator of *The Romance of the Forest* recognizes "neither physician nor apothecary in the village," there is physic and apothecary being practiced in times of need, and to some success.[123] Madame is presented as an expert who not only ministers to minor wounds, but undertakes to give prognoses as well. Therefore, even if her practice is undermined by other characters, or the narrator, at times, it is important to understand that the focus on her role as a practitioner of physic constitutes a nuanced engagement with the greater debates about women in the medical marketplace.

While her status as a healer is largely supported by the narrative, Mme. La Luc's role as medical practitioner is substantively challenged when she tries to treat the chevalier's ailing arm. Although she felt great "pleasure at the opportunity thus offered [by M. Verneuil's injury] of displaying her physical skill," Madame quickly recedes to her private room to bring forth "a phial of her inestimable balsam," leaving it to M. Verneuil's servant to apply. Madame's physical skill, here, is decidedly hands-off compared to her nursing of Clara. She provides the balsam, which she has composed in her laboratory, but she does not apply it as it would not be appropriate for her to have this type of physical contact with the chevalier. This "hands off" approach was not confined to women. In fact, it was not uncommon for physicians during the eighteenth century, for whom the practice of physic was a largely theoretical science, to leave the physical

[123] *Romance* 243.

administration of cures to others; however, as we shall see, Madame is more closely connected to the work of empirics than physicians in this scene.

Mme. La Luc's balsam is a mysterious concoction, made in her private laboratory, the composition of which is known only to her. And its value is challenged within the narrative.[124] As a "composed" substance, the balsam would have been classified as one of the "composite plant materials" which were processed by a relatively small part of the apothecary trade in the eighteenth century (Klein and Lefèvre 200). Chemical compositions were directly connected to the work of Paracelsus, the late sixteenth century empiric, whose published work had a profound influence on the practice of medicine and the sciences in England in the seventeenth century. Although later lauded as "the reformer of medicine," Paracelsus was a contentious figure during the seventeenth and eighteenth centuries; his work—although practiced by many—was regularly attacked in print.[125] This moment connects Radcliffe's work to the more broad engagement between Gothic literature and the sciences: a relationship that is often thought to have begun with *Frankenstein*. While Victor Frankenstein pointedly explores the work of Paracelsus (and Albertus Magnus) in order to "penetrate the secrets of nature," it is Madame LaLuc who first questions the shift in medical science from the

[124] Although some physicians supported the use of chemical medicines in certain cases, they were also the subject of much distrust and scrutiny.

[125] For an interesting nineteenth century recuperation of Paracelsus by The Royal College of Physicians Edinburgh, see Edward Berdoe's 1888 *Paracelsus: the reformer of medicine*. According to Berdoe, Browning's 1835 biographical poem, "Paracelsus," changed the way in which the seventeenth-century physician was viewed by the reading public: "'Charlatan,' 'drunken empiric,' 'conjuror,' 'sorcerer,' 'quack,' 'extravagant impostor.' This is how he was described before Mr. Browning wrote" (13). These same terms were applied to those practicing empirical medicine, as well as unsanctioned practitioners of traditional medicine.

more broadly theoretical to the applied chemical and, arguably, more invasive practices that came into favor in different circles at the end of the seventeenth century.[126] We can therefore read Madame's practice of chemical medicine, shrouded in secrecy, as an act almost more transgressive than that of the young Frankenstein before he discovers galvanism. While Frankenstein reads and admires these early pioneers that his father terms, "sad trash," Madame LaLuc practices paracelsian medicine on her friends and family.

Of course, Madam's practice of chemical medicine is questioned in the failure (and possible danger) of her balsam. Described as "inestimable," a term that can mean both "of surpassing value or excellence," and "that cannot be reckoned up or computed,"[127] the uncertain status of both the balsam and its maker is highlighted in the subsequent suffering of the chevalier: "[The arm] was now swelled and somewhat inflamed, and this might be in some degree attributed to the effect of Madame La Luc's balsam, whose restorative qualities had for once failed."[128] Although we can assume that it had been used safely in the past because of the qualifier "for once," Madam's practice of both physic and apothecary are undermined in this scene. This makes Mme. La Luc

[126] Shelley, Mary. *Frankenstein, or the Modern Prometheus*. London: Penguin Group (1992): 40. As Stuart Curran points out, the alchemy of Paracelsus stood in contrast to the more modern, experimental chemical experiments of Robert Boyle, and Joseph Priestly at the end of the eighteenth century. "The dismissals by Victor's father (1.1.6) and Professor Krempe (1.2.7) serve to point up the distance the late eighteenth century saw between these mystics and the modern experimental chemistry as practiced by such scientists as Boyle, Priestley, and Davy" (Curran, Stuart, "Contexts—Science—Alchemy" in *Frankenstein; or, the Modern Prometheus*, by Mary Wollstonecraft Shelley. The Pennsylvania Electronic Edition: University of Pennsylvania).
[127] "inestimable, adj." *OED Online*. Oxford University Press, March 2017. Web. 3 June 2016.
[128] *Romance* 271.

seem unreliable as a healer, and further complicates the way that we read her practice of physic.

The following morning, "the whole family sympathized with his sufferings, and Madame, at the request of M. Verneuil, abandoned her balsam, and substituted an emollient fomentation."[129] The term fomentation simply referred to the application of a piece of cloth soaked in a hot liquid, which sometimes contained emollient herbs, such as chamomile or mallows. It was a commonly prescribed natural remedy during the seventeenth and eighteenth centuries, its application would have carried no risk, and it would have required little to no specialized training.[130] The fact that this treatment was requested by the chevalier, and proves more effective than Mme. La Luc's balsam, foregrounds the power of traditional, Galenic medicine in Radcliffe's novel. In this way, the emollient fomentation stands for nature, while the caustic balsam is seen as a potentially dangerous intercession into the natural order, bringing us back to the original narratorial statement that doctors actually interfere with nature—the true healer.

In the end, Radcliffe's Mme. La Luc stands as an example of the tension surrounding the practice of what William Buchan described as "domestic medicine" in his 1769 book of the same name. At first glance, this title may seem to promote the idea that medicine in the home was not only sanctioned, but promoted by physicians; however, as Mary Fissell and Roger Cooter explain: "[Bunchan's] title, *Domestic*

[129] *Romance* 271.
[130] An emollient fomentation was so common that many herbals referred to it as a "common fomentation" or a "common decoction." For instance, see Buchan, William. *Treatise for the Prevention and Cure of Diseases by Regimen and Simple Medecines.* London: A. Strahan (1790): Sig. XX^{v}.

Medicine, implies that there is in fact a nondomestic medicine," and "one of the primary agendas of the text is to distinguish between those ailments that are appropriately treated domestically and those that require a doctor's attendance (Porter 148-149).

The practitioners of "nondomestic medicine," physicians, surgeons, and apothecaries, were themselves in a power struggle for medical authority during the eighteenth and early nineteenth centuries. Debates surrounding the empiricism of Paracelsian medicine and the theoretical basis of Galenic medicine could be seen across cultural mediums, and pervaded medical discourse in print. One common place for weighing in on this debate was the prefaces of medical recipe books common during the seventeenth and eighteenth centuries. As Dr. John Quincy states in the preface to his *Pharmacopoeia Officinalis Extemporanea*, one of the key aims of his book is "that they who are regularly educated in Pharmacy, may not any longer have the Disgrace of borrowing Assistances from Empirics" (A4r). Those "educated in pharmacy" were primarily apothecaries, who were some of the early adopters of Paracelsian, or chemical medicine; empirics were then presented as rogue apothecaries, and "quacks," who were seen as interlopers into the system of physicians, surgeons and traditional apothecaries who knew their place in the hierarchy of the medical marketplace. In this context, the intrusion of empirics was viewed as not only disgraceful (because of their marginalized position) but a threat to patients and the social order.[131]

[131] However, this bias against empirical knowledge began to shift by the end of the eighteenth century, and it often did not extend to the "polite" sciences, such as astronomy and botany, which often encouraged the practice of empirical methods, in concert with (and at times over) book learning .

Although this scene has been dismissed as "irrelevant" in recent scholarship, nowhere does Radcliffe engage more actively with the debate surrounding the system of competing medical practitioners than in the scenes of the physic and the surgeon in *The Romance of the Forest.* In this scene the hero, Theodore, has been wounded, and the heroine must manage his medical care.[132] The scenes of the physic and the surgeon come at a point in the novel when Adeline has escaped the Marquis (who we will later discover to be her uncle) for the first time, with the aid of Theodore, one of her captor's soldiers, and has traveled some distance before stopping to rest at an inn. Having narrowly avoided both rape and incest, Adeline is then confronted with the possibility of being left friendless when Theodore is wounded in an encounter with the Marquis' men. Emily's challenges increase as she waits in the small, unfamiliar village for Theodore's uncertain recovery. Not only must she evade the danger of the Marquis, but she must find her way through the complex political and social world of medical services in the seventeenth century.

For Adeline, the stakes of losing her way in the negotiation of medical care are just as high as getting lost on a dark mountain path, and the "banditti" (in the form of the Marquis' men) are a constant threat while Theodore convalesces. However, this scene is

[132] Claudia Johnson's brief reference to this scene in *Equivocal Beings* undermines the relevance of medical practice during the eighteenth century as a point of actual debate among the reading public: "Even the many debates here about doctoring of different sorts—material which would otherwise seem irrelevant—ask the same question: to make 'man' healthy, should we resist or follow his 'nature?'" (74). While I agree with her brilliant reading of this scene in relation to *Macbeth* and gender, I also think that just as Radcliffe critics have spent so many years believing that "decaying castle could not possibly represent actual, material features of the European countryside" (Johnson 76), so does Johnson miss the rich possibility that the debates about medicine in Radcliffe's novels may represent actual features of late eighteenth century life.

not just another example of virtue in distress, but an aesthetic engagement with scientific dialogue, in which the power structure established in the scenes of Adeline's earlier rescue by la Motte is reversed. In the medical marketplace, knowledge is power, and Adeline's quick thinking means the difference between life and death for her would-be rescuer. Therefore, Adeline's participation in the medical treatment of Theodore upsets the roles of rescuer/rescued, established in the first scenes of the novel, in which Adeline finds herself helpless and at the mercy of strangers. The range of medical acumen that Adeline demonstrates, along with Ann Radcliffe's allusions to the complex relationship between various types of medical practitioners, creates a multi-faceted discourse about medical and scientific practice at the end of the eighteenth century.

In the scenes of Theodore's wounding and convalescence, the medical profession in general is initially treated with distrust by both Adeline and the townspeople[133]. After Theodore's confrontation with the Marquis' soldiers, the towns people, "whom the report of the affray had brought together," gather at the inn. In the crowd is a man "who acted as physician, apothecary, and surgeon to the village," but who is generally referred to as "the surgeon" thereafter.[134] Adeline's distrust of the surgeon is immediate, and upon inquiring of the landlady whether there is any other "medical person" in town, she is told, "Lord, Madame, this is a rare healthy place; we have little need of *medicine* people here; … One of the sort's quite enough for us."[135] The landlady's comment echoes the

[133] For the early critical division of *The Romance of the Forest* by the first two , and then the third volume, see Rogers *The Critical Response to Ann Radcliffe* pp. 6-8.
[134] *Romance* 177.
[135] *Romance* 180. It is worth noting here that both "quacks" and recognized physicians, surgeons, and apothecaries would have had a vexed relationship with women, such as the landlady. Up until the mid-18th

narrative comment made at the outset of Adeline's illness (described earlier in this chapter): instead of presenting the lack of medical resources in her small town as a deficit, this character subtly indicates that, in a "healthy" place, the professional practice of medicine is an intrusion.[136] Once again, however, we will see that this is not just a matter of nature vs. medicine, but a complex treatment of the variety of medical philosophies and interventions available at the end of the eighteenth century, in which this debate played a role.

The labeling of the surgeon as a general "medicine" person, along with the earlier description of him as "physician, apothecary, and surgeon" speaks to the idea that he functions outside of a single recognized designation, authorized by one of the medical authorities of the time. It was not uncommon for medical practitioners during the seventeenth and eighteenth centuries to claim medical expertise in a number of fields; however, titles such as "physician," "surgeon," and "apothecary" were official designations that were regulated and recognized as distinct by those who were members of the professional medical associations of the Royal College of Physicians, the Company of Surgeons (formed in 1745), and the Worshipful Society of Apothecaries.[137] This does

century (source?) women were largely responsible for the health of their families and others in their communities. In 1769, William Bunchan published the popular (and inexpensive) *Domestic Medicine*, in which he "insist[ed] that certain ailments can be treated only by a doctor" (Porter, 2003, p.148-149). His distinction between "domestic" medicine, and what I would call professionally practiced medicine (medicine requiring a certified practitioner); According to Roy Porter, although Bunchan appropriated "folk medicine and lay practice," he contributed to the marginalization of those women who practiced it (149).

[136] Just what does it mean to be a "healthy" place though? Is this a comment on the "fashionable" diseases of London and Bath as described by James Makittrick Adair, M.D., in his 1772 Medical Cautions… Containing Essays on Fashionable Diseases, &cetera?

[137] According to the website of the Royal College of Physicians, "From the start the RCP was involved in battles with other medical bodies in the struggle to control medical licensing in London. It did actively engage in licensing practitioners and punishing those involved in 'malapraxa', especially in the 16th and

not mean that a physician could not also be a surgeon (many were), but an apothecary who practiced physic was often unauthorized to do so, and could come under both legal and public censure. Regardless, many medical practitioners during the eighteenth century claimed expertise in multiple types of practice. Surgeons were especially suspect as medical "multi-taskers" due to their historic connection with barbers. Because of this (and because of the difficulties encountered by the Royal Company of Surgeons after they separated from the Company of Barber Surgeons in 1745) surgeons were often the subject of many treatise warning against unauthorized medical practice during the late eighteenth century.

In fact, Adeline's distrust of the surgeon is tied closely to a convention of printed treatise and medical texts: the anecdote as evidence. Popular titles such as *Medical Anecdotes of the Last Thirty Years, Illustrated with Medical Truths, and Addressed to the Medical Faculty; But in an Especial Manner To the People At Large,* by B. Dominiceti, M.D. (London 1781), presented case studies of patients encountered in the author's practice, as well as anecdotes shared by other physicians. Dominiceti uses these stories, much as the surgeon in *Romance,* to advertise his medical expertise, along with his superiority in the medical marketplace. Having spent the preceding pages chronicling many unsafe and ineffectual remedies applied by rival medical practitioners, along with anecdotes of his own successes, Dominiceti concludes his treatise: "I presume it is evident from the authorities cited, and the cases related, that there is not a *more* safe and

17th centuries. But until the 19th century there were usually fewer than 60 fellows at any one time and under 100 licentiates."

effectual remedy discovered… than what is to be obtained from my *new-invented*, tho' *long-established* system."[138] In the end, Dominiceti betrays the underlying impetus for many of these attacks-in-print, a struggle for market share in an increasingly competitive medical marketplace.[139]

Although these types of cautionary stories and medical anecdotes were common in medical treatises intended for a general audience in the seventeenth and eighteenth centuries, Radcliffe's use of the convention goes beyond mere citation, employing satire to comment upon the use of the genre of the cautionary medical anecdote by a surgeon.[140] At first, the surgeon provides evidence in the form of a medical anecdote to support his diagnosis and treatment plan: "I am not apt, indeed, to form opinions upon uncertain grounds. I will give you a singular instance of this: …" he states before recounting his story.[141] However, in an attempt to display his own superiority as a medical practitioner, the surgeon juxtaposes his "success," with the relative "failure" of a physician with whom he is in competition for patients. Rather than reassure her, the surgeon's story convinces Adeline of not only his incompetence, but the danger of his attending to Theodore: "During his narrative, Adeline had been considering by what means she could discover the name of the physician, for the instance that had been produced to prove his

[138] Domniceti G1v.
[139] As an immigrant to London, himself maligned in print, Dominiceti had good reason to participate in this kind of public debate: the visibility it provided and the vindication of his expertise, in print, would have both been draws.
[140] Anecdotes about dangerous medical practitioners existed both in medical literature and treatise about "quacks, &c.," but also in miscellanies, such as *Sylva, or, the Wood: Being a Collection of Anecdotes, Dissertations, Characters, Apophthegms, Original Letters, Bon Mots, and Other Little Things.* By A Society of the Learned. London: T. Payne. 1788.
[141] *Romance* 183.

ignorance, and the *infallibility* of his opponent, had completely settled her opinion concerning them both."[142] The irony here is that the surgeon, in attempting to utilize a medium that was commonly employed in favor of physicians, and against surgeons, in popular print culture, actually manages to reinforce the message of that medium: never trust a surgeon to do the work of a physician. However, as we shall see, the lines between what constituted the work of a physician and what fell under the practice of surgeon, were not clearly defined at this time.

Eventually, Adeline must use her own understanding of the rivalry between surgeons and physicians to exploit the surgeon's pride and ignorance and obtain the name of the rival physician, along with his place of residence: "'And will you permit me, Sir, to ask the name of the physician, who so ignorantly opposed you?' / 'Certainly Madam, it is Lafance.' / 'He lives in the obscurity he deserves, no doubt,' said Adeline. 'Why no, Madam, he lives in a town of some note, at about the distance of four leagues from hence…'"[143] This dialogue, coming on the heels of the surgeon's anecdote, leaves no room for misunderstanding the role of the surgeon in Radcliffe's novel: his character inhabits a liminal space, both figuratively and literally, as a surgeon at the end of the eighteenth century, and as a "physician, apothecary, and surgeon" in a small village with no need for more than one "medical" man.

Much like anecdotes, the use of dialogue in scientific texts also has a long history, but Radcliffe appears to adhere to what Patricia Fara sees as a gendered response to the genre

[142] *Romance* 185.
[143] *Romance* 185.

at the end of the eighteenth century: "Female scientific authors adopted a chatty, personal style; constructing their books as fictional dialogues, they revolutionized this traditional didactic device by placing women instead of men in the position of authority."[144] Much of this scene is indeed constructed as a dialogue, rather than a synopsis. This allows the reader to experience the act of quick thinking and decision making on the part of the heroine, who asks questions that respond to the dialogue itself rather than a proscribed form. She then uses the information provided by the surgeon in his answers to make an informed decision, and she creates questions that will lead her to her desired resource (a physician), without betraying her aim to the surgeon. Adeline's exercise of medical agency, not for herself, but on behalf of another who is not related to her, is very important. Although Adeline does not practice medicine herself, she does make sophisticated medical decisions, going against the advice and social pressure of the landlady and the attending surgeon.

The characterization of Theodore's surgeon as an unaware dolt serves to do more than encourage Adeline to make medical decisions. His character speaks to very real concerns at the time about the efficacy and the role of particular types of medical providers, such as surgeons who might "overstep" their proscribed place in the medical hierarchy of the time. In this way, the character of the surgeon contributes to an ongoing discussion in print about not just the appropriateness, but the safety of trusting one's health to "quacks." Not all surgeons were considered "quacks" (nor were all "quacks"

[144] Fara, Patricia. "Educating Mary: Women and Scientific Literature in the Early Nineteenth Century." In Frankenstein's Science: Experimentation and Discovery in Romantic Culture, 1780-1830: 19.

surgeons), but in this case, a reading of the surgeon's medical practices along with his anecdotes about past patients, lead the reader to view the surgeon as both incompetent and dangerous.

In response to the rivalry between the surgeon and the physician in *The Romance of the Forest*, Chloe Chard's notes that, "it is assumed here that the reader is aware of the sharp social division which in fact existed between physicians and surgeons in eighteenth-century England."[145] However, more than just a rivalry, or a class issue, the description of the interaction between the surgeon and the physician illustrates the much greater struggle for medical authority in England during the eighteenth century. This struggle for authority went back to the early-seventeenth century, when Valentine Russwurin first challenged the Barber-Surgeons in London with his use of the then little-known compounds and practices of the Swiss-German physician who went by the name Paracelsus. According to Deborah Harkness, Russwurin's successful London practice was brought down by this rivalry, which resulted in a smear campaign in print by the Barber-Surgeons and the co-opting of Paracelsian medicine by both the Company of the Barber-Surgeons and the Royal College of Physicians. The Barber-Surgeons used the ensuing court battle to push for more authority to prescribe medicines, along with their ability to perform minor procedures without the supervision of a physician.[146]

[145] Chard 381.
[146] For an excellent overview of the battle for medical authority in seventeenth century England, see Deborah Harkness' chapter: "The Contest Over Medical Authority: Valentine Russwurin and the Barber-Surgeons," in *The Jewel House*.

Radcliffe was writing her novels during a time when the Company of Surgeons was in crisis, and the status of the surgeon was uncertain in England. This is not to say that surgeons were not used (or were not necessary), but that there was no unified understanding of what they were qualified and capable of performing. In 1745, the Company of Surgeons, led by William Cheselden, officially separated from the Barber's Company and asserted its autonomy in an effort to increase the medical authority of its members.[147] The transition was not smooth, and the Company of Surgeons struggled to make a place for itself until its final reformation as the Royal College of Surgeons in London in 1800.

It is not unreasonable to think that Radcliffe would have had first-hand knowledge of struggles between the College of Physicians and the Company of Surgeons; her paternal grandmother was the sister of William Cheselden, who led the effort of the surgeons to separate from the barbers, and whose public battle with fellow surgeon John Douglas played out in the print culture of the time, including the prefaces to both men's books. Cheselden's heavily illustrated *The Anatomy of the Humane Body* went through at least thirteen editions between 1713 and 1793, and his *Osteographia* (which initially incited John Douglas' attack) was renowned for its engraved images of animated skeletons in natural landscapes.[148] Further, the types of print debate that Cheselden engaged in were analogous to the function of the medical anecdotes I referred to earlier, which were used

[147] See Harold Ellis, *A History of Surgery*. London: Greenwich Medical Media Limited. 2002. P. 62.
[148] For more about Cheselden's print war with John Douglas, see Furdell's *Publishing and Medicine in Early Modern England* (168-169). Cheselden's *The Anatomy of the Human Body* contained between 27 and 40 engraved plates, and was published in a more affordable octavo format, perhaps adding to its appeal to a general audience.

to illustrate practices, build confidence, and assert primacy of one practitioner over another in scientific texts.

As an accomplished author, and the great niece of Cheselden, as well as a sufferer of asthma, Ann Radcliffe would have been in a unique position to comment upon the medical marketplace of the day. As Rictor Norton states in his biography of Ann Radcliffe, "William Radcliffe remembers seeing books which Cheselden had given to William Ward [Ann's Father], and Ward's grateful recollection of these presents from his uncle.[149] So there is a strong chance that Ann Radcliffe would have been exposed at an early age not only to the types of sumptuous scientific texts that Cheselden produced, but also to the debates and conflicts that these types of texts (and Cheselden's in particular) contained in their prefaces . Her later estrangement from her parents, and residence with her mother's relations, including Thomas Bentley, also put Ann Radcliffe in contact with her mother's cousin, Sir Richard Jebb, Bt., an "eminent physician" who attended Radcliffe's childhood companion, Suckey Wedgewood, when she became ill while staying with the Bentleys in 1778.[150]

The marginalized status of the surgeon is highlighted in *The Romance of the Forest*, through the juxtaposition of the first surgeon with the rival physician, and the inclusion of a second surgeon, who works under the direction of the physician (not on his own). "He had scarcely, at Adeline's request, recommended a surgeon, instead of the one at present

[149] Norton 14.
[150] Norton 21, 31. Susannah (Suckey) Wedgewood married Erasmus Darwin's third son, Robert, in 1796; she gave birth to Charles Darwin, the famous naturalist, in 1809.

employed, when the later gentleman entered the room, and perceiving the physician, threw a glance of mingled surprise and anger at Adeline, who … dismissed him with a politeness, which he did not deign to return, and which he certainly did not deserve."[151] It is Adeline who makes the decision to dismiss the surgeon, and her authority, although treated with distain, is unquestioned; the surgeon's lack of politeness may betray Adeline's lack of place in the social order, but he does not appeal her decision, emphasizing his own uncertain status.

By including the detail of the physician recommending a second surgeon, Radcliffe reinforces the hierarchy of medical practitioners established in the seventeenth century, with the college educated physicians at the top, and the surgeons, apothecaries, and empirics in positions of service to the physician. This hierarchy was continually challenged (or ignored) throughout the eighteenth century by surgeons, apothecaries, and empirics, just as the first surgeon who attends Theodore attempts to assert his medical authority and practice the role of physician. By the time the second surgeon arrives, Theodore is already so improved through the care of the physician that a surgeon is no longer necessary, highlighting the power of the physician: "Early the following morning the surgeon arrived, but either the medicines, or the crisis of the disorder, had thrown Theodore into a deep sleep… He awoke perfectly sensible and free from fever…"[152] With the physician's Galenic practice of physic, the violent and unnatural interventive

[151] *Romance* 189.
[152] *Romance* 189.

techniques of the surgeon is counteracted, while the order established by the College of Physicians is upheld, along with their Galenic leanings.

It is not enough to conclude that the first surgeon who sees Theodore is merely inept. Radcliffe does make him ridiculous at times, describing his own failures in terms that resemble bragging; for instance, as he recounts an example of his superior abilities in medicine, his example only proves to unnerve Adeline through his obvious incompetence: "I, therefore, altered the prescriptions and myself administered the medicines; but all would not do, my opinion was verified, and he died even before the next morning."[153] However, it is his underlying philosophy that Radcliffe really exposes as flawed: "'You do not approve, then, of the method, which I have somewhere heard of,' said Adeline, 'of attending to nature in these cases.' 'Nature, Madam!' pursued he, 'Nature is the most improper guide in the world. I always adopt a method directly contrary to what she would suggest; for what can be the use of Art, if she is only to follow Nature?'"[154] This statement betrays the Paracelsian underpinnings of the surgeon's practice, the philosophical notion that experimental science and compound medicines have the advantage over the natural medicine of the past. It also puts this character in direct opposition to the debates surrounding nature and education, promoted by Rousseau and others. Radcliffe presents a complex positon on these debates by giving many of her heroines a Rousseauvean education, while still questioning the limits of lessons learned

[153] *Romance* 184.
[154] *Romance* 185-6.

in perfect isolation when the student is eventually confronted with the machinations of the wider world.[155]

In fact, when the physician arrives at Theodore's bedside, the patient has already been denied water in favor of "cordial draughts," and kept in a heated room to produce fever. "Cordial draughts" were often supplied by "chymists," due to the nature of the ingredients, many of which were not found in apothecaries.[156] To counteract this course of treatment by the surgeon, the physician prescribes a "composing draught," or sedative, and directs that he "shall be kept quiet, and be allowed to drink freely of some diluting liquids."[157] "Diluting liquids" were often prescribed in conjunction with bleeding, a Galenic practice thought to restore balance to the humors.[158] Composing draughts and diluting liquids were both common in eighteenth century medicine, and would have been familiar to many, if not most of Radcliffe's readers.

By presenting the prescriptions of the first surgeon alongside a characterization that alludes to his incompetence, and Adeline's unease about his methods, then juxtaposing this with the successful prescriptions of the physician, Radcliffe participates in the debates over appropriate medical methods and practitioners. This intervention makes a clear statement about not only the incompetence of surgeons, and the dangers inherent in trusting their treatment, but the necessity to think critically about medical treatment and make informed decisions. Later in the novel this debate between Galenic and chemical

[155]For more on Radcliffe's complex relationship with these Rousseauvean debates, see my previous chapter on Botany and the Domestic Sciences in the later work of Ann Radcliffe.
[156] See Doherty, Francis. 526.
[157] *Romance* 188.
[158] Cook 10.

science comes up yet again, in the medical administrations of Madame La Luc. So, while one may read this interlude as strictly a satire on surgeons, I don't think this is entirely the case. Although satirical, this moment functions more as a commentary on the scientific debate between Galenic and Paracelsian—or "natural" vs. chemical—medicine, which played a role in the medical debates of the time.

As stated previously, Paracelsian medicines had been in use in London since Elizabethan times, and it was during these times that they came to be associated with charlatans and surgeons. By the eighteenth century, much of Paracelsus' work had fallen out of favor, but his empirical methods continued on in the work of surgeons who continued to prescribe chemical and mineral medicines to a growing population of believers.[159] This is not to say that physicians did not use chemical medicines during the seventeenth and eighteenth centuries. In fact, later in the novel, when the narrator states: "There was neither physician nor apothecary in the village, so that nature was deprived of none of her advantages,"[160] we see how the work of physicians was at times connected with decidedly unnatural remedies. However, surgeons were traditionally more allied with new methods of treatment, as opposed to physicians, who were under the restraint of a rather static tradition of education and a more bureaucratic professional association.[161] Therefore, it remained the surgeons who were the primary practitioners of empirical

[159] Mary Shelly also comments upon this shift away from Paracelsus in Vol. 1, Ch. II of Frankenstein, when Victor Frankenstein states: "All that he said threw greatly into the shade Cornelius Agrippa, Albertus Magnus, and Paracelsus, the lords of my imagination…" (43). Some scholars have read this moment as a discrediting of the "old system," while others read this as a recuperation of these systems.
[160] *Romance* 243.
[161] The Royal College of Physicians was founded in 1518.

medical techniques, and issuers of chemical medicines during the eighteenth century, while the physicians remained more engaged with traditional Galenic medicine.

The conflict between the surgeon and the physician contributes to the heightened sense of danger set by the chase scenes, the sublime landscapes, and the nighttime escapes in *The Romance of the Forest*. As we shall see, by utilizing contemporary unease about the role of the surgeon in the medical community, Radcliffe heightens the suspense and the terror in her novel, while allowing Adeline to negotiate the medical marketplace in a way that both utilizes and comments upon current debate. This places the heroine in a position to exercise agency in making decisions about the health of her family, or at least the only "friend" that she has.

When we view Adeline's actions through the lens of medical and anatomical knowledge, it gives the reader a very different picture of the "Radcliffean heroine," who has at times been described as incapable of growth or change.[162] Adeline certainly develops throughout the novel, by utilizing different types of information (oral, visual, and textual), in a variety of environments, to make decisions about the health and welfare of herself and others. It is important at this point to remember that Adeline has already been confronted with having to unravel a mystery centering on the textual and physical remnants of her father's wounding and death at the hands of the Marquis. During her stay with the de la Motte family Adeline is led into a secret chamber by a series of terrible

[162] Anne Henry Ehrenpreis goes so far as to say "'Pictures of perfection' do not need to learn or improve" in relation to Radcliffe's heroines. See Ehrenpreis introduction to Jane Austin's *Northanger Abbey* for more about perceptions about the "Radcliffean heroine."

dreams. In fact, one of the most terror filled (and supernatural scenes) in *The Romance of the Forest* is that of Adeline's dream and subsequent visit to the secret room in which her father had been imprisoned and stabbed. When Adeline first dreams of the man (who we only later find out is her father), he appears as a dying victim and an animated corpse in a series of macabre images: "While she looked on him, his features changed and seemed convulsed in the agonies of death. The spectacle shocked her, and she started back, but he suddenly stretched forth his hand, and seizing her's, grasped it with violence…"[163] It seems that this image of the dead Marquis is decidedly corporeal, convulsing and reaching, even grasping. And, the story he tells is directly tied to evidence provided by his body and its textual surrogate.

In the eighteenth century, scenes of death were not uncommon in books, paintings and prints. For example, educated men and women would have encountered images of "animated corpses" in anatomy books produced for both specialists and non-specialists. In Adeline's dream scenes, the former Marquis is shown inhabiting a space between life and death, grasping as he "convulsed in the agonies of death," and bleeding enough to fill the room as he lay motionless under Adeline's gaze.[164] His corpse is both animated, leading her to the site of his coffin—even lifting the pall so that she might examine his body closer—and anatomized, with the cut at his side both representing the initial cut of the anatomist's blade, and the forensic evidence of his murder.

[163] *Romance* 108.
[164] *Romance* 109-110.

In addition, the descriptions of the furniture in his prison room reflect the violence that has occurred in that place: "…[Adeline] saw only a great chair, with broken arms, that stood in one corner of the room, and a table in a condition equally shattered, except that in another part lay a confused heap of things, which appeared to be old lumber."[165] The broken arms of the chair, the shattered table, and the heap of lumber, all represent the broken body of the father, while testifying to the violence that destroyed not only him, but the space in which he was imprisoned. While what remains of his body lays concealed in a trunk, hidden from view, the furniture becomes the visual focal point of the room. Skeletal furniture stands in for all that remains of the once-great Marquis, and his victimization and fate underscore the danger that his daughter is currently in—in the very place of his death. Unable to tell his story any other way, the victim speaks through images, and the evidence in the room colludes with him.

The imagery in Adeline's dreams evokes the etchings and engravings found in anatomy books throughout the eighteenth century, including the anatomical treatise of Radcliffe's great-uncle, William Cheselden; [166] the pictures in these books showed corpses, often posed, sometimes tied up with ropes, faces contorted in pain, yet still able to grasp, to move. According to Sachico Kusukawa, the use of walls, rope, and other props "rendered the positions of the body or the bones plausible."[167] However, she goes on to say, in

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[165] *Romance* 116.

[166] From William Cheselden, *The Anatomy of the Human Body.* London: Printed by William Bowyer (1740). Monro Collection, A6. http://www.otago.ac.nz/library/exhibitions/physio100/

[167] Kusukawa 208. *William Cowper, The Anatomy of Humane Bodies, with Figures Drawn after the Life by Some of the Best Masters.* Oxford: Smith and Walford (1698). Monro Collection, M52. Image courtesy of the Otago University.

relation to the illustrations of Vesalius, "As noted by Harcourt, the body depicted in those images was not the actual, particular body dissected at a particular place at a particular time. The images were meant to be not a 'counterfeit' but a 'cannon'…"[168] Unlike the "cannon" of anatomical illustration developed by Vesalius (and copied by numerous engravers in the centuries following the publication of his *De fabrica* in 1543), the illustrations of William Cheselden were presented as "counterfeit," or based upon an actual object/body being observed by the illustrator. This was made explicit on the title page of *The Anatomy of the Human Body*, which showed the artist using the camera obscura to sketch a hanging torso. [169]

The shift to counterfeit images in anatomical treatise is important to my reading of the dream scene in *Romance*. Like the images in late eighteenth century anatomies, the ghostly body in Ann Radcliffe's novel is both a particular body and instructive. It is made particular in the detail given about the man from whom the ghostly image is drawn; it is instructive in that it invites Adeline (and the reader) to learn about the circumstances of its demise through a careful look at the body itself, which contains information about the circumstances of the Marquis' death. Although framed as a dream, the details presented are drawn from the life of the deceased, discerned through a combination of observing the body and its surrogates: the furniture in the room and the manuscript that they yield. In fact, it is the counterfeit nature of the body that gives this scene (and the books I am relating it to) its power: the image of the father teaches his daughter about not just the

[168] Kusukawa 221.
[169] William Cheselden, *The Anatomy of the Human Body*. London: Printed by William Bowyer (1784).

past, but HER past, and the knowledge he imparts is vital to her ability to make decisions about her own bodily safety.

These "animated corpses" straddle the line between the supernatural and the scientific, inhabiting the world of the scientific, yet functioning as spectacle. Like Adeline's father, they are both dead and undead, and their presence cannot fully be accounted for without an understanding of the violence that has been done to their bodies. Like a dream, they appear ephemeral, allegorical, but their presence both depends on, and informs a very visceral understanding of death, and the human body.

Similarly, the ghost of Adeline's father can also be said to function as one of what Jerrold Hogle calls "Gothic ghosts of counterfeit existence:" in other words, an image that stands in the place of a person who is not available in any other way.[170] As a liminal figure who is manifested first as a skeleton and then as something between a ghost and a dream image, the only thing stable about Adeline's father is the idea that he is based upon a once living figure, whose physical remains, along with his spirit/dream form are put on display for the reader. This connection, between the physical body and the "animated corpse" of Adeline's dream, is important to the reader's understanding of the character of the late Marquis, but also of the other characters who only know him through these post-mortem forms, such as Adeline and La Motte.

[170] Hogle, J. E. (2012) The Gothic Ghost of the Counterfeit and the Progress of Abjection, in *A New Companion to the Gothic* (ed D. Punter), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781444354959.ch34: 293.

Scenes of death and dissection also occupied the world of eighteenth century art, where paintings and prints visually connected surgery to anatomization. An example of this comes from the work of a Dutch painter named Egbert van Heemskirk, who worked in England at the turn of the eighteenth century; one of van Heemskirk's paintings was formed the basis for an engraving by Toms around 1730, and came to be known as the *Quack Physicians' Hall*.[171] Below Toms' print appears a poem that illustrates the distrust and uncertainty about surgeons and "quack" physicians, whose work was suspect even when it operated within the authorized bounds of their profession:

> Behold a Quack Physician's Hall,
> Adorn'd with Beasts like Butcher's Stall;
> The various Figures which you see,
> Shew Mankind in Epitome;
> Where Ignorance, instead of Art,
> Supplys the Place of true Desert:
> How hard the Fate of Humankind
> When Blind Men only lead the Blind.[172]

The late Marquis' death by stabbing evokes the imagery of the initial cut to the abdomen common in public anatomy lessons, and illustrated in the frontispiece to Vesalius' *De Humani Corporis Fabrica*, 1543, and Toms' engraving of Heemskirk (see above). "While she looked at him, a stream of blood gushed from his side, and descending to the floor, the whole chamber was overflowed."[173] Although illustrations of anatomy lessons did not include gushing blood (bodies were drained of blood before dissection), they are at times portrayed with intestines descending from the open

[171] Haslam 265-266.
[172] ibid
[173] *Romance* 109-110.

abdomen to the floor. This imagery invokes the practice of keeping a bucket for viscera and other organs on the floor of the anatomy theater. The descent of the father's blood from the wound in his side then had a direct relation to imagery found in anatomical texts. The imagery of the anatomy lesson is also connected to the idea of criminals and of punishment, as bodies were often obtained from public executions of convicted criminals.

Although he is not a criminal, Adeline's father was imprisoned, and executed, his body left unburied—a similar fate to many criminals whose bodies were used in public anatomies. His skeleton is later discovered and by la Motte, who gazes at it "at length:" "…lifting the lid, he saw the remains of a human skeleton… That thrilling curiosity, which objects of terror often excite in the human mind, impelled him to take a second view of this dismal spectacle. La Motte stood motionless as he gazed…"[174] Although he is entranced by the spectacle of the body, La Motte decides that this is not an appropriate image for the delicate constitution of the women: "He was anxious that his family should not perceive the skeleton; an object, which would, probably, excite a degree of horror not to be overcome during their stay."[175] Therefore, he decides to close the cover on the trunk, hurrying the women by this "object" when they later traverse the room. The presentation of the skeleton as both a "spectacle," unsuitable for the female gaze, and an "object" to be hidden is interesting in the narrative. Although engraved images of public anatomies would have been available to a broad audience in print, the spaces of anatomical inquiry in England were decidedly masculine during the eighteenth century.

[174] *Romance* 53-54.
[175] *Romance* 56.

So, while many women would have had access to images of anatomies and skeletons, and some may even have witnessed dissection from a distance, they were never the ones "lifting the lid" to publicly gaze inside the human body. By reducing the skeleton to both a spectacle and an object, La Motte is not protecting the women, but denying them access to vital information about their surroundings.

Although not specifically a scene of public anatomy, the descriptions of the secret room closely mimic the images of public and private dissections in popular culture. Beyond this, the forensic evidence encountered by de la Motte and Adeline are in line with descriptions of autopsies of the time, which often used narrative detail to explain the condition of the body being examined. These autopsies were becoming more popular as people began to look to the body itself to discover the details of a person's death.[176] The presentation of the corpse as a site of medical evidence (telling the story of his own bodily harm and death), extends to the manuscript hidden in the bed by Adeline's father. With the body hidden in a trunk, and known only to the Marquis, his men, and la Motte, the broken bedstead that yields the manuscript is the only tangible body of evidence available to Adeline; when it is found, it is reminiscent of a moldering corpse whose history can only be read through the text that it produces.

The manuscript text itself is semi-effaced (or epitomized) by time. This is represented through narrative description, but also by the typography employed in printing this

[176] As Wendy Moore explains, "…the rise in postmortems was driven by changing attitudes within society. The Georgians' avid fascination with their health encouraged people to seek answers when their loved ones died…" (113). Although Adeline does not know that she is collecting evidence of her own father's death, the process of uncovering the manuscript, and the imagery of the dream scene, both connect to the images of both anatomies and autopsies.

section of *Romance*. The effaced passages of the manuscript are denoted by asterisks, which give the reader an indication of the extent of the damage, as well as representing, in spatial dimensions, the placement of the missing pieces. This disruption of the body of the text mimics the epitomized body of the father: both are hidden away at the very scene of violation, and both bear evidence of the violence perpetrated upon the body. The insistence on a visual rendering of this effacement supports a connection between the visual understanding of the body in relation to verbal descriptions. This has implications not only for the anatomical references in *Romance*, but also to other visual references as well: Ann Radcliffe does not merely emulate paintings in her descriptions, she engages with the visual rhetoric of effacement and decay in the organization of the printed page as well.

Although not an epistolary novel, manuscripts and letters play an important role in *Romance*.[177] The connection between body and hand-written document is established through the connection of the ghostly presence of the father with the discovery and reading of his manuscript. It is later reinforced later in the novel, when Theodore's letter invokes his physical presence to Adeline: "Adeline now opened her packet, and saw once more the well-known characters of Theodore; for a moment, she felt as if in his presence, and the conscious blush overspread her cheek…"[178] Theodore inhabits the text of his

[177] The epistolary is considered a style that is characterized by a connection between the manuscript and the body.
[178] *Romance* 350.

letter in the same way that Adeline's father inhabits the rotting manuscript, and the presence of both men is felt by Adeline when she reads their writing.

In addition to their textual presence, both Theodore and Adeline's father are represented as spectral images within *Romance*. It is in this spectral presence that the parallels between Theodore's threat of execution, and Adeline's father's murder by the Marquis becomes striking; at one point, Adeline looks at Theodore in his cell and envisions him as a corpse: "As she was once more quitting the room, her melancholy imagination represented Theodore at the place of execution, pale and convulsed in death; she again turned her lingering eyes upon him; but fancy affected her sense, for she thought as she now gazed that his countenance changed, and assumed a ghastly hue."[179] This is a stunning example of what Terry Castle is referring to when she says, "to be a Radcliffean hero or heroine in one sense means just this: to be 'haunted,' to find oneself obsessed by spectral images of those one loves."[180] While in both *Romance* and *Udolpho*, these "ghosts" inhabit specific spaces/places, in the case of *Romance,* the spectral presence of the lover and the father are closely tied to the manuscript documents created by the hand of the absent figure, as well as the spaces in which their presences are felt.

In both cases, the manuscripts in *Romance* that provoke the spectral presence also act as a bolster to the courage of the heroine, who must act in order to redress the wrongs committed against the men who are meant to protect her. However, whereas in the case of her father, Adeline was a child and could not stop his death, in Theodore's case,

[179] *Romance* 336.
[180] Castle 672.

Adeline is able to use her agency in the medical marketplace to save another of the Marquis' victims. In a way, Adeline's experience of the graphic scenes of death in her explorations of the prison apartment prepares her for her eventual role as actor in the medical culture of the time. The information she receives through the images of her father's body, along with his manuscript, constitutes a form of education that informs her character in key ways, enabling her to make informed decisions regarding her escape, and to act on Theodore's behalf when she needs to.

In the end, Adeline preserves her father's manuscript, "with the pious enthusiasm so sacred a relique deserved."[181] Adeline's "pious enthusiasm" in this moment may be said to invoke a religious understanding of the "relique": The term carries both the connotation of a piece of the body, and "the receptacle containing it" in the Christian tradition.[182] However, in this case, there is another, more fitting definition of "relique"; "that which remains or is left behind, especially after destruction or wasting away."[183] This definition is more in line with other popular uses of the term, such as Bishop Thomas Percy's 1765 *Reliques of Ancient English Poetry*, in which ballads, songs, "and other pieces of our earlier poets," were collected and published from "a mutilated and incorrect manuscript."[184] In the end, what remains of Adeline's father are the skeleton and the epitomized manuscript document. Each are collected, "read," and preserved as a testament to both the man and his sufferings—physical and textual histories of a haunting

[181] *Romance* 355.
[182] "relique, n." *OED Online*. Oxford University Press, March 2017. Web. 3 June 2016.
[183] ibid
[184]Prichard, J.V. "Advertisement to the edition of 1876" in Thomas Percy's *Reliques of Ancient English Poetry*. Ex-Classics Project (2016). By 1794, Percy's Reliques had already been printed in four editions.

past. But before they can serve as evidence, both objects must be anatomized within the text, dissected for the reader (and for Adeline herself) to gain knowledge of the terrible fate which befell him.

Even one of Radcliffe's early nineteenth century reviewers recognized this impulse to anatomize in Radcliffe's later work; in speaking about *The Italian's* Montoni, a *Monthly Magazine* review states: "Mrs. Radcliffe has dissected depravity with *medean* boldness, and dared to lay open the arteries of *male* dereliction from the oracles of the heart to the marrow in the bones. She has penetrated beyond the metaphysics of her sex, and exposed the criminality peculiar to ours."[185] Describing Radcliffe's literary "dissection" of the male character as *medean* is telling.[186] Her work was often described as "unnatural," and her heroines embrace non-traditional roles, making medical and legal decisions for themselves and others, as well as practicing science and physic at times.

Later criticism of Radcliffe's work, blaming her for the rise of "terror novels" at the end of the eighteenth century, echo concerns about medical practices of the time. Compare Prevost and Blagdon's 1803, "'Invective against Novelist Goblin-Mongers': 'O ye goblin-mongers! ye wholesale dealers in the frightful! is it not cruel to present to the imagination of a lovely female, such horrid images, as skulls with the worms crawling in and out of their eyeless sockets?'"[187] with Thomas Percival MD's recommendation in his

[185] Rogers 106.
[186] The reviewer in this instance also exposes the dichotomy of the Medean figure in the mid to late eighteenth century, during which time: "Medea was redesigned as a near-perfect mother sent temporarily insane," and "a truly superhuman witch, with awesome magical powers." Hall and Macintosh. *Greek Tragedy and the British Theatre.* Oxford: Oxford University Press (2005): 2.
[187] Norton 160.

1803 treatise, *Medical Ethics*: "When several operations are to take place in succession, one patient should not have his mind agitated by the knowledge of the suffering of another. The surgeon should change his apron, when besmeared; and the table or instruments should be freed from all marks of blood, and everything that may excite terror."[188] This passage shows how some of the horror of Ann Radcliffe's rotting corpses and condemned characters may have related to the very real threat of physical violence coming from the medical community itself, in the form of surgeries and treatments which were often both visually terrifying and fatal. The condemnation here is not of the violence itself, but the descriptions and images of this violence, and their effects on a susceptible audience.

The idea of medical science as violence was also illustrated and commented upon in often reproduced images of surgeons as butchers, and anatomy lessons as places of punishment for criminals. In Hogarth's "The Reward of Cruelty," we see a pointed illustration of the political implications of the public anatomy. In reading this image alongside *The Romance of the Forest*, we can begin to see more clearly the connections between the threat of the noose and the anatomization of the body in relation to Theodore's threatened execution, but also in relation to the violence committed upon the Marquis body; in particular, the image of the entrails spilling to the floor in Hogarth's image parallels image of the blood spilling from her father's side in Adeline's dream (as discussed above). Although the entrails in "The Reward of Cruelty" do not "fill the room," as the late Marquis' blood did, they certainly dominate the foreground of the

[188] Haslam 274.

image, over spilling the bucket, and guiding the eye to the narrative below. The skeletons in the background provide another element of connection between the threatened anatomization of Theodore, and the fate of the father's body as an object of horror and spectacle; although the late Marquis' skeleton was not put on display, it was treated as an object of spectacle by la Motte, who as we recall gazed upon it at length. Skeletons often adorned anatomy theatres, and their presence was both scientific and symbolic of the power of the anatomist over the body after death.[189] Ultimately, la Motte decides to keep the knowledge of the skeleton from the women in the house, reinforcing the idea of the anatomy theater—and the knowledge that it presented—as a masculine realm. For la Motte the skeleton remained both a source of perceived knowledge and a source of interest: a secret knowledge available to only him.

It is fitting that we end in a Gothic space; having begun in the village inn, with the public practice of medicine, we end in the private space of the abbey, in which Adeline's early education in medical advocacy begins. The connection between these two cases is the representation of medicine and science in print: in medical and anatomy books, periodicals, and art, as well as in novels such as Ann Radcliffe's *The Romance of the Forest*. Through her characters and descriptions Radcliffe comments upon elements of pressing significance in the scientific and medical worlds. Further, her work demonstrates the ways that late eighteenth century literature responded to current debates about science. This response occurred across genres, so in order to understand Ann

[189] Wendy Moore recounts a story of how family and friends of an executed criminal tried to protect their bodies from the Company of Surgeons, which had a right to six bodies annually. "After the body was buried by his devotees, it was secretly dug up and smuggled away to Surgeons' Hall. His skeleton remains at the Royal College of Surgeons to this day" (35).

Radcliffe's role in the greater literary engagement with science and medicine during the eighteenth century, we will have to begin to read her work alongside other eighteenth century science books and art. In this way, we can begin to see how Radcliffe's novels represent a nuanced engagement with science and medicine that prefigures later Gothic novels such as *Frankenstein* by explicitly engaging with science and scientists, medicine and medical practitioners as both necessary and problematic cultural forces, while calling attention to the ways in which human bodies materially transmit information about their origins through images and print.

Chapter 3

"There is something in her features": Physiognomy and the Radcliffean Character.

"Were man and man as easily discriminated as the lamb and the tiger, the Physiognomist's would be an useless science; but since both lamb and tiger may dwell in human frames, he surely deserves our thanks, who points them out to us before we wound the one or sink beneath the other."[190]

In the past, Ann Radcliffe has been accused of creating characters who are virtually indistinguishable.[191] In fact, she seems to play with this idea herself in her novels, by including numerous misidentifications, misunderstandings, and ambiguous miniatures that depict more than the person who sat for them. When Clara La Luc exclaims: "There is something in her features… that prejudices me in her favor," the reader may assume that the face she is looking upon does not deviate much from her own, regular, fine features.[192] However, there is nothing simple about the way that these characters are described, and how they interact based upon their assessment of each other's features. Although much scholarly attention has been paid to Radcliffe's landscapes, relatively little has been said about the landscape of the face—a key feature in late eighteenth-century novels. Like her contemporaries, Radcliffe utilized physiognomical descriptions in her novels. However, her use of this pseudoscience shows

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[190] Lavater, Johann Caspar. *Essays on physiognomy: designed to promote the knowledge and the love of mankind. / By John Caspar Lavater, citizen of Zurich, and minister of the Gospel. Illustrated by more than eight hundred engravings accurately copied; and some duplicates added from originals.* Tr. Henry Hunter. London: Printed for John Murray in three volumes (1789-1798): V.1 a2v. Future references will be to Hunter, *Essays on physiognomy*.

[191] For instance, in 1921 Edith Burke asserted that, "Mrs. Radcliffe's heroines resemble nothing more than a composite photograph in which all distinctive traits are merged into an expressionless 'type,'" an opinion supported by Cynthia Wolff.[191] See Birkhead, Edith. *The Tale of Terror: A Study of the Gothic Romance*. London: Constable & Company Ltd. (1921): 52. Wolff, Cynthia. "The Radcliffean Gothic Model," in *The Female Gothic*. Montreal: Eden Press (1983): 207-223.

[192] Radcliffe, Ann. *The Romance of the Forest*. Ed. Chloe Chard. Oxford: Oxford University Press (2009): 256. All future references to this text will use the title: *Romance*.

a complex, and at times skeptical, application of physiognomy that is not seen in the work of many of her contemporaries.

The term physiognomy comes from the ancient Greek *φυσιογνωμία*, or phusiognōmonia: "judging of a man's nature (by his features)."[193] According to Melissa Percival, "its earliest manifestation in Western culture was during classical antiquity, and the pseudo-Aristotelian *Physiognomonica* is usually cited as the first piece of writing specifically devoted to physiognomy."[194] In 16th century England, it was most notably used by fortune-tellers as a means of predicting the future, using the physical aspects of the face; it fell out of favor during the court of Henry VIII, who denounced it as a form of beggary. By the first half of the eighteenth century, physiognomy was still practiced, but its liminal status is illustrated by the word's definition in the 1730's *Dictionarium Britannicum*, which defines it as an "art of guessing" rather than a science of knowing: "Physio'gnomy- the Art of guessing the Natures, Conditions, or Fortunes of Persons by their Faces."[195] In this definition, physiognomy is still strongly associated with divination, a connection that sets it distinctly apart from the new language of empiricism in science, inherited from Boyle and others at the end of the seventeenth century.

Indeed, even into the second half of the eighteenth century, physiognomy retained its connection to astrology and palmistry, with an attendant distrust of the "gypsies" who

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[193] "physiognomy, n." *OED Online*. Oxford University Press, March 2017. Web. 3 June 2016.
[194] Percival, Melissa. "Introduction," in Physiognomy in Profile: Lavater's Impact on European Culture. Melissa Percival and Graeme Tytler, eds. Newark: University of Deleware Press (2005):17. According to Percival, "Physiognomy is an extremely resilient phenomenon, adopting new guises in different epochs": 17.
[195] Bailey, Nathan. *Dictionarium Britannicum: or a more compleat universal etymological English dictionary than any extant*. London : printed for T. Cox at the Lamb under the Royal-Exchange, M,DCC,XXX. [1730]: 6H2^{r}.

practiced it. In his satirical defense of physiognomy, John Clubbe, a friend of Hogarth, describes the state of physiognomy in mid-eighteenth century England: "It may then be asked, how came this art ever into reputation? I answer, by the same means that Urinal Quacks and Conjurers have had a run here in the kingdom; by a difficulty of access and a parade of hard words; and by giving time to their Zanies to pump out the secrets of the vulgar…."[196] The reference here is to the types of science and medicine that were being practiced on the streets of London, with peddlers and their accomplices (Clubbe's "Zanies") soliciting to crowds of people from all walks of life. In this scenario, physiognomy was once again connected to fortune-telling, through the slight-of-hand techniques of the physiognomist, or his accomplices.[197]

The effect of this continued connection to occult practices on physiognomy is also echoed later works, such as Samuel Shaw's 1800 defense of physiognomy in the preface to *Physiognomy; or, The corresponding analogy between the conformation of the features, and the ruling passions of the mind***:**

> Confused and sophisticated with Falsehoods, termed occult Reasonings, the noble Science of Physiognomy has been neglected for near a Century, and deemed by the Judicious a mere farcical Contrivance to fleece the Pockets, and disturb the brains of the Unwary. Thus even those, who have suspected there might be some rational Grounds to build Hypothesis upon, have been fearful of venturing to appear even in the slender Form of an Essay."[198]

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[196] Clubbe, John. *Physiognomy; being a sketch only of a larger work upon the same plan: wherein the different tempers, passions, and manners of men, will be particularly considered*. London: printed for R. and J. Dodsley (1763): A3r [HEH].

[197] See Deborah Harkness' *The Jewel House* for a fascinating and accessible look at the forms that scientific and medical practice took in Early Modern England. Deborah Harkness describes this "everyday" science as one of the most prevalent, although least recorded, forms of information transmission in Early Modern England, and it persisted both on the streets and in the drawing rooms and parlors of Eighteenth Century England.

[198] Lavater, Johann Caspar. *Physiognomy; or, The corresponding analogy between the conformation of the features, and the ruling passions of the mind*. Tr. Samuel Shaw. London: H.D. Symonds (1800): A1r [HEH]. Henceforward referred to as Shaw, *Physiognomy*.The asserted paucity of physiognomical texts in

However, unlike Clubbe, Shaw is careful to distinguish between the charlatans who proclaim a knowledge of the future through physiognomy, and the new Physiognomist, who is an educated scientist reclaiming the "noble" practice of the Greeks and Romans. This "modern" practice of reading faces has been carefully divorced from divination, and instead focused on social applications, in particular the formation of social ties such as friendship.

Despite its claims to the contrary, Shaw's estimation of physiognomy comes on the heels of a decade in which there was a tremendous amount of physionomical representations in literature, scientific texts, periodicals, and visual culture. So, what happened in the interceding decades between Clubbe's satirical treatise and Shaw's reasoned scientific defense to shift the perception of physiognomy—at least in the eyes of some—and allow for its serious application in fiction and non-fiction alike?

In 1789, Henry Hunter's translation of Johann Caspar Lavater's *Essays on Physiognomy, Designed to Promote the Knowledge and the Love of Mankind* was printed in English for the first time.[199] More than eight hundred engravings accompanied the three volumes of text in quarto, making it both a sumptuous book, and a practical guide to the practice described within. Hunter worked hard to redeem the reputation of physiognomy in his translation, by emphasizing methodology and a systematized practice of reading faces, along with the philosophical underpinnings to Lavater's recuperation of

print is not supported by the catalog record, which shows that both new, and old works of physiognomy circulated throughout the eighteenth century.

[199]Lavater's *Physiognomische Fragmente zur Beförderung der Menschenkenntnis und Menschenliebe* was originally published in German, in 4 volumes, between 1775 and 1778.

this ancient practice. According to Robert Mighall: "This work, along with the systems devised by Gall and Spurzheim and developments in physical anthropology and natural history, helped to establish the practice of reading individual appearances according to systematic and scientific criteria."[200]

Suddenly, this once outdated (gothic) practice became a scientific pursuit, with an (at least nominally) scientific method behind it.[201] Lavater's text attempted to change the perception of physiognomy. By using engravings that relied heavily upon classical illustrations and models in profile, as well as rhetoric that foregrounded a methodical approach to the practice, focusing on various features of the face both in isolation and in relation to each other, Hunter's translation of Lavater stood as a counterbalance to earlier works on the subject that foregrounded more fantastical illustrations of faces that at times resembled human/animal hybrids. These earlier texts, by Giambattista della Porta and others, relied heavily on allegorical images that would prove unlikely to have the same wide practical application at the end of the eighteenth century, when more systematized

[200] Mighall, Robert. *A Geography of Victorian Gothic Fiction: Mapping History's Nightmares*. Oxford: Oxford University Press (2003): 174. Despite his use of classical mathematical and aesthetic models for his illustrations, even Lavater's translators acknowledged his text's lack of systematic inquiry: "In the present State of our Knowledge, a systematical View of the physiognomonical Science can hardly be expected: a Collection of Observations, arranged but with little Attention to Method, is all the industrious M. Lavater promises, and all we can reasonably expect" Henry Hunter, "Preface" in Lavater, Johann Caspar. *Essays on Physiognomy* (A2r). See n. 1 for full reference.

[201] Lavater's system of physiognomy focused on the contemplation of empirical evidence, gathered through illustrations and direct observation. However, his published work failed to implement an empirical system: "One commonly cited flaw was the contradiction between Lavater's professed empiricism (an observational approach involving direct contemplation of the subject) and his frequent recourse to a priori reasoning" (Percival 19).

and to some extent, counterfeit, illustrations such as those in Lavater's essays became associated with scientific knowledge and reason, as rooted in the works of the ancients.[202]

However, critics of Lavater were quick to point out that his text is less useful for explaining common physiognomies than at promoting the practice as a personal one, and many of the images are defined by a stylized sentiment. In fact, four of the images in the English editions of Lavater's Essays were engraved by William Blake, one after Rubens' "Democritus," "painted from fancy."[203] Classical in style, this image invites both analysis and sentimental engagement. Lavater's description engages in the later, with little attention paid to the "science" of physiognomy:

> *This is not the man who had his eyes thrust or burnt out, as a security against the distraction of mind occasioned by external objects, that he might give himself wholly up to abstract speculations. Neither is he the declared enemy of sensuality and carnal pleasure.' No; this is not the Democritus before us: it is the image of Democritus the Laugher…' [Who grinn'd and grinn'd at every one he met]. He who laughs continually, and at every thing, is not only a fool, but a wicked wretch; as he who is always crying, and at every thing, is a child, a changeling, or a hypocrite."*[204]

The privileging of a scientific method that in practice relies heavily on sentimental engagement is reminiscent of Rousseau's rhetoric in his *Letters on Botany*, which I describe in the first chapter of this dissertation. Both men present the marriage of reason

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[202] Giambattista della Porta's *1602 De humana physiognomia* contains what Kusukawa would call allegorical images, while Lavater's text (and Hunter's English translation) at times employed "counterfeit" images, taken from life or art. See fig. 1 and fig. 2.

[203] This figure corresponds with the section entitled: "Harmony of Moral with Physical Beauty," in Hunter's translation of Lavater's *Essays*.

[204] Johann Caspar Lavater (1741-1801), *Essays on Physiognomy: Designed to Promote the Knowledge and the Love of Mankind [Physiognomische Fragmente zur Beförderung der Menschenkenntnis und Menschenliebe];* illustrated by more than eight hundred engravings, accurately copied; and some duplicates added from originals; executed by, or under the inspection of, Thomas Holloway (London: Printed for John Murray … H. Hunter … and T. Holloway …, 1792). Graphic Arts Collection (GAX), Princeton University. Oversize 2007-0002Q: 159-160.

and sentiment as the true path to knowledge, and both treat popular subjects of their time as opportunities to reassert the value of sensibility and reason.

The increased interest in physiognomy among the learned in England, illustrated by Hunter's sumptuous tome, is also referred to in a variety of periodicals of the time—including those that celebrated both its connection to the occult and physiognomy's new status as a science. In a description of the "late Mr. John Henderson, of Oxford" in "The Astrologer's Magazine; and Philosophical Miscellany," of 1794, it is said of the deceased that "he spoke of physiognomy as a science, with all the confidence of a Lavater."[205] This pointed use of physiognomy to establish character is echoed in descriptions of characters in popular literature as well. We see in the works of Ann Radcliffe and other writers of fiction throughout the century that physiognomy in the eighteenth century began to be practiced by people from all walks of life, and in particular men and women who may not have all been socially elevated, but were for the most part educated. The influence of physiognomy on Gothic characters has been noted by scholars, such as Mighall, who goes further with his reading of physiognomy's influence, using the work of John Graham to explain that, "the descriptions and interpretations of the sentimental heroine and the Gothic villain, as well as the later Byronic hero, were possible and effective only in this context of the regenerated traditional science of physiognomy."[206] This statement

[205] Immediately preceding his thoughts on physiognomy, Mr. Henderson is referred to as, "a master of the Greek, Latin, Arabic, and Persian languages, as well as several other tongues," in addition to his expertise in civil and cannon law, geometry, and "every branch of natural and experimental philosophy" (157). "Life of Mr. Henderson" in *The Astrologer's magazine; and Philosophical miscellany. Consisting of philosophical transactions with a monthly portion of Lavater's Physiognomy*, London: W. Locke (1794): 157.
[206] Mighall 157.

builds on the idea that physiognomy was an essential component to late eighteenth-century life, as expressed in literature, as well as visual art; however, this does not mean that these mediums engaged in physiognomic descriptions in an uncritical way. For instance, the aforementioned remembrance of John Henderson went on to specify his thoughts on the "science" of physiognomy: "That it may increase a man's knowledge, but not his happiness. 'The physiognomist,' says he, 'first discovers the evil in another, and afterwards the good; but the man unskilled in the science first discovers the good which pleases him, but afterwards the evil which disgusts him."[207] Although this "science" was used by many prominent authors in their character development, we should not assume that all authors considered physiognomy a credible science. While Radcliffe's Madame Cheron certainly illustrates the "[wo]man unskilled in the science," who only discovers the evil lurking in Montoni too late, this is not enough evidence to argue that Radcliffe was a proponent of the practice. In order to get a better indication of how author's utilized physiognomy, we need to look closely at how the practice is presented in relationship to the story lines and characterization within the novel.

It is important to understand that late eighteenth-century physiognomy was considered distinct from pathognomy: "the knowledge or study of the passions or emotions, especially the facial expression of them."[208] Shaw clarifies this in his 1800 preface to Lavater's Essays: "[p]hysiognomy is the science or knowledge of the correspondence between the external and internal man, the visible superficies and the

[207] ibid
[208] "pathognomy, n." *OED Online*. Oxford University Press, March 2017. Web. 3 June 2016.

invisible contents…. pathognomy, is the knowledge of the signs of the powers and inclinations of men—" the inner nature of the subject, versus his emotions or passions in the moment.[209] The study of facial expressions as a way to convey emotions was not an uncommon topic in print in the seventeenth and eighteenth centuries, as attested to by the enduring popularity of Charles le Brun's 1688 *Conference sur l'expression generale et particuliere*, published by Robert Sayer as *The Expressions of the Passions*, in 1734, and again with engravings, in 1760.[210] While pathognomy had wide applications for understanding the expression of human *emotions* in plays, art, literature, and life, physiognomy—and in particular the type of physiognomy promoted by Lavater at the end of the century—was more concerned with "character," or inner truth as expressed in the physical features of the face at rest.

This idea of character is distinct from emotion, in the same way that physiognomy is distinct from pathognomy, and it is the idea of reading a person's character that Radcliffe explores most deeply.[211] She does this by framing physiognomy as a process of gathering information and using physical evidence to make decisions about character/characters that she engages with; rather than presenting the products of physiognomy: images or descriptions that can be read and analyzed, Radcliffe

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[209] Lavater, Johann Caspar. *Physiognomy; or, The corresponding analogy between the conformation of the features, and the ruling passions of the mind*. Tr. Samuel Shaw. London: H.D. Symonds (1800): C2v [HEH]. Henceforward referred to as Shaw.

[210] Le Brun, Charles. *A method to learn to design the passions, proposed in a conference on their general and particular expression*. Written in French, and illustrated with a great many figures excellently designed, by Mr. Le Brun, ... Translated into English, and all the designs engraved on copper, by John Williams, Esq; London : printed for the author; and sold by J. Huggonson; Mr. Croyton in Ipswich; and at the printsellers and pamphlet-shops of London and Westminster, 1734. ESTC N034885. HEH.

[211] Although, as we shall see in *The Italian*, in extreme circumstances the emotions could affect a physiognomy over time.

specifically engages with physiognomy as a practice. The emphasis on praxis is important, and can be seen throughout Radcliffe's multiple engagements with science, including botany and medicine.

For the sake of argument, I have divided the practice of physiognomy in Radcliffe's later work into two categories: descriptive and analytical.[212] This will allow us to view the multiple levels of engagement with physiognomy within the text. Descriptive physiognomy comprises the descriptions of characters by the narrator, often including details that a reader would be able to read against one of the many published physiognomy texts of the time. This type of descriptive physiognomy does not actively engage with other factors, such as astrology, nor does it make overt arguments based upon comparisons of humans to animals or other external comparisons. Rather, the descriptive physiognomy in Radcliffe's novels gives the reader, and at times the characters, a way to quickly judge, or justify a judgement, about both heroes and villains in the narrative.

Analytical physiognomy often begins with a physiognomical description as well, but uses that description to articulate an argument about the character being described. For instance, a character (or the narrator) might use physiognomic assessment to "read"

[212] I have developed the term "analytical physiognomy," based upon the concept of analytical bibliography, which seeks to trace how printed texts were manufactured by examining the product of that process. Similarly, the analytical physiogonomists in Radcliffe's novels examine the features of other characters, to discern how their physiognomies have come to be; this process, combined with external evidence and social concerns, informs many of the decisions made by Radcliffean heroines/heroes. The term "descriptive physiognomy" is more straightforward, in that it involves the simple description of the physical features, for comparison to existing authorities. According to the Encyclopedia Britannica, "With Lavater the descriptive school of physiognomists may be said to have ended, just as astrological physiognomy expired with la Bellière" (*The Encyclopaedia Britannica*, 11th ed., 1911: V. 21. P.551). However, in Radcliffe we can see how the idea of descriptive physiognomy evolved, rather than disappeared at the end of the eighteenth century.

another character and make a judgement about their history and motives in order to make a decision about how to act. Analytical physiognomy does not have to include a description of the person; at times, the author allows the reader just enough of a description to judge along with the heroine/hero, but at others we merely get an understanding of how physiognomic impressions affect the actions of the characters.

Although recent critical interest in physiognomy tends to focus on descriptive physiognomy, and especially villains, I am interested in the ways in which Ann Radcliffe uses both descriptive and analytical physiognomy in conjunction. From descriptions of our "symmetrical" heroines, to Madame La Luc's chastisement of Clara for her physiognomic judgment of Adeline in *Romance*, to Monsieur St. Aubert's assessment of Valancourt in *Udolpho*, physiognomy permeates not only the descriptions of Radcliffe's characters, but their expectations and actions as well. In many ways, some of the most important (and baffling—to the modern audience) decisions made by Radcliffean characters, are made because of conclusions reached through analytical physiognomy—in particular, the ways that connections and friendships are formed.

Although Radcliffe's landscapes can mislead at times, the topography of the face is strangely both more questioned and more reliable in her novels. Nowhere is this more apparent than in *The Mysteries of Udolpho,* in which a sublime and shifting landscape provides the backdrop for the practice of both analytical and descriptive physiognomy. Against this backdrop, Emily St. Aubert and her father first encounter Valancourt, a wayward second son, whose physiognomy recommends him immediately to St. Aubert. Their meeting, and Valancourt's subsequent courtship of Emily, illustrates the ways in

which physiognomy is used to inform friendships that are subsequently tested, before the initial (physiognomic) assessment is upheld.

Emily and her father are traveling through a wild mountain pass when they encounter the young man in hunter's clothing. After their chance meeting, during which St. Aubert is "pleased with his chevalier-like air and open countenance," Valancourt is invited to ride with Emily and her father for a while, before they part ways. Beyond mere hospitality, St. Aubert's solicitation of Valancourt's company is heavily influenced by the sense that St. Aubert gets from observing the features of the young chevalier.

Later, the pair encounter the young traveler once again, this time in the dark, where he is mistaken for a "bandito" and shot by St. Aubert. Without the benefit of physiognomic assessment, Valancourt appears as what he actually is—an unknown stranger—and St. Aubert perceives him as a threat to him and his daughter. Upon recognizing his mistake, St. Aubert feels terrible and the three travelers decide to sojourn in a mountain village where Valancourt cements the interest, and inspires the trust, of Emily's father (St. Aubert), who finds in him a kindred spirit: "He saw a frank and generous nature, full of ardour, highly susceptible of whatever is grand and beautiful, but impetuous, wild, and somewhat romantic…. His perceptions were clear, and his feelings just."[213]

This description could very well apply to St. Aubert himself, whose attempts to reign in Emily's sensibility ignore his own susceptibility to affective responses. The

[213] Radcliffe, Ann. *The Mysteries of Udolpho*. Ed. Bonamy Dobrée. Oxford: Oxford University Press (1998): 41. Future references will be cited as *Udolpho*.

concordance of faculties and qualities as the basis for friendship is actually one of the foundations of Lavaterian physiognomy as well. As Hunter's translation asserts:

> "Men are undoubtedly formed in such a manner, that each may find another to suit him: but every man does not suit every man; every one has his particular method of seeing, and appears in a particular point of view, in which alone he can be seen to advantage. If then I happen to discover in any one—employing, for this purpose, means the most prompt, the easiest, the most natural, the most certain, that is, studying his exterior, his Physionomy—if, I say, I happen to discover in him faculties, qualities, and signs which seem to correspond with the desires, with the calls of my heart;--if I breathe freely in his atmosphere—if there be nothing heterogeneous between his figure and mine, no apparent unsuitableness between our characters—a mutual attraction brings us together, and our friendship is founded upon the most solid basis."[214]

In the friendship between these two men, Radcliffe make it clear that it is not just about similar interests, or inclinations. Valancourt's physiognomy is as important a factor as his taste in books. However, despite their fast friendship, inspired by St. Aubert's initial impressions of the young man, St. Aubert is not such a blind believer in physiognomy as to trust his daughter to judgements based upon it alone: "[T]hough his countenance and manners would have won him the acquaintance of St. Aubert, who was very apt to trust to the intelligence of his own eyes, with respect to countenances, he would not have accepted these, as sufficient introductions to that of his daughter."[215] Physiognomy has its limits. It may inform a friendship between two men, but is not sufficient proof of a person's "true nature" to risk the honor of his daughter by allowing a stranger into her acquaintance. For this, St. Aubert requires additional proof—in the form of Valancourt's family history—to support his initial physiognomic assessment.

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[214] Lavater, *Essays on Physiognomy*. Tr. Henry Hunter: v. 3.2, O1r.
[215] *Udolpho* 56. But he does not require much information beyond the discovery that Valancourt's family estates, along with the elder brother who possessed them, were located not far from La Vallée.

St. Aubert's practice of physiognomy must be read in relation to his botanizing in order to fully understand the ways in which Radcliffe connects this practice to the greater culture of scientific empiricism at the end of the eighteenth century. Much like the botanist, who was encouraged to study the outside of the plant initially to discover its nature, the physiognomist was believed to "seek signs of the inner person marked on the outside, backtracking from effect to cause to show how inclination leads to action."[216] In other words, for St. Aubert, identifying an object's nature, be it plant or person, involves first gathering evidence from external impressions, and then utilizing that information to cultivate an understanding of the internal nature of the person or plant. As with botany, he then uses his extensive familiarity with the local inhabitants (be it plant life or the landed gentry) to understand the specimen in front of him. In the case of Valancourt, St. Aubert uses this knowledge to gather evidence from the young man's face, and utilize his knowledge of the region to identify the young man as both good natured, and "native" to the region of La Vallée. As Radcliffe tells us, he would not trust his daughter to positive external identification alone, but the combination of physiognomic assessment and a familiar family history, allows St. Aubert to develop a deep friendship with Valancourt in a relatively short time.

[216] Berland, Kevin. "Inborn Character and Free Will in the History of Physiognomy" in *Physiognomy in Profile: Lavater's Impact on European Culture*. Eds. Melissa Percival and Graeme Tytler. Newark: University of Delaware Press (2005): 25. There was also an interest in what is called botanical physiognomy during the 1790's (*see The Astrologer's magazine; and Philosophical miscellany. Consisting of philosophical transactions with a monthly portion of Lavater's Physiognomy*, ... London, 1794). This argument is not meant to support the practice of physiognomy, rather, to show the connections between science and what we now know to be pseudo-science. It is worth noting that neither botany nor physiognomy were without controversy at the time that Ann Radcliffe wrote.

As I discuss in an earlier chapter, St. Aubert is both scientifically and sentimentally biased toward the botanical species local to his home and to his place of birth; it is no wonder that he applies the same criteria to people. In this way, he reflects the form of geographical botanical physiognomy seen in Alexander Von Humboldt's 1806, *Ideen zu einer Physiognomik der Gewachse* (Ideas for a Physiognomy of Plants).[217] Humboldt's treatise uses the term "physiognomy" liberally, and there is evidence that he was greatly influenced by the work of Lavater in his understanding of this practice: "Humboldt suggests that to examine the features of nature's 'face' is not only to perceive its present state, but also to read its past history, the record of its development."[218] Similarly, Valencourt's history, and his development within the novel, are read in his features—first by St. Aubert, and finally by Emily.

Emily's turn at physiognomic judgement of her lover comes after Valancourt falls out of favor with Emily and her protectors, due to rumors of moral transgressions during his sojourn in the corruptive landscape of Paris. This leads to a crisis for the heroine, who's attachment to Valancourt began with the initial impressions of her father, and rapidly increased over the few days that they spent travelling together in the mountains surrounding their mutual home. In Radcliffe's gothic novel, first impressions—in this case based on physiognomical assessment—play a key role in not only friendship between men or between women, but they also serve to expedite the courtship between

[217] Humboldt, Alexander von. *Ideas for a Physiognomy of Plants*. Elise C. Otté and Henry George Bohn, trans. Cambridge: Cambridge University Press (2011).
[218] Werner, James V. "'Ground-Moles' and Cosmic Flaneurs: Poe, Humboldt, and Nineteenth-Century Science." The Edger Allan Poe Review. 3.1 (Spring 2002): 48.

the heroine and her would-be lover, and ultimately to justify that attachment as well founded.

Although he may appear to transgress the first impression of Emily's father, Valancourt is ultimately found to be the inherently good person that Monsieur St. Aubert first believes him to be, based upon his appearance. Rather than destabilizing St. Aubert's initial, physiognomical view, the instability in Valancourt's character can be readily explained by Shaw's understanding of physiognomy. "With secret delight, the philanthropic physiognomist discerns those internal motives, which wou'd otherwise be first revealed in the world to come. He distinguishes what is permanent in the character from what is habitual, and what is habitual from what is accidental. He, therefore, who reads man in this language, reads him most accurately."[219] In the end, St. Aubert's reading of Valancourt is successful at discerning what is "permanent" in his character. Valancourt's transgressions, which become less scandalous with each telling, are if anything accidental, or circumstantial. It is the "true form" of Emily's lover that her father recognized, which she and her protectors come to acknowledge in the end.

Hunter's translation makes it clear that physiognomy should form the foundation for not only friendship, but should inform all encounters with new acquaintances. Valancourt also practices physiognomy, but most pointedly to try to protect Emily from the dangerous characters she encounters in the world outside of La Vallée. Samuel Shaw's later epitome translation of Lavater contextualizes the type of physiognomy that Valancourt practices in relation to Montoni: "There are men, with whom we have daily

[219] Shaw B6v.

intercourse, and whose interest and ours are connected. Be their dissimulation what it may, passion will frequently, for a moment, snatch off the mask, and give us a glance, at least a side view, of their true form."[220] It is worth noting that Valancourt's physiognomic assessment of Montoni is more accurate than both Emily and her aunt's (Madame Cheron, the future Madame Montoni). Like St. Aubert, Valancourt focuses on the underlying principle of Lavaterian physiognomy, which is the discovery of the "true form" of a person, or the "true colors" as we would say: "Were man and man as easily discriminated as the lamb and the tiger, the Physiognomist's would be an useless science; but since both lamb and tiger may dwell in human frames, he surely deserves our thanks, who points them out to us before we wound the one or sink beneath the other."[221] Although Valancourt's physiognomic assessment of Montoni does not achieve his desired end—Emily's safety—it does establish his own good judgement.

Valancourt's practice of physiognomy is provoked by the misgivings he has about Montoni, once he realizes that the Italian stands to control the fate of Emily, as her aunt's intended husband. In some respects, Valancourt's practice of physiognomy in this case borders the manipulation of fortune-tellers past: he uses his physiognomic assessment of Montoni to try to get Emily to elope with him—a move that he stands to directly benefit from, and one that is certain to ruin Emily's reputation. Valancourt's reading of Montoni can also be related to pathognomy as, "the knowledge of the signs of the powers and inclinations of men—."[222] Indeed, it is less the true nature of Montoni that is important

[220] Shaw B8v.
[221] Hunter *Essays on Physiognomy* V.1 a2v.
[222] Shaw C2v.

here, than his power and inclinations toward Valancourt's beloved. However, as Tytler tells us, "even a person well acquainted with pathognomy is liable to be deceived in his understanding of human nature, unless he is at the same time conversant with physiognomy."[223] And it is Valancourt's practice of physiognomy, that is, his reading of the static features of Montoni's face, that Radcliffe gives us.

After an ominous warning from one of Montoni's fellow Italians, Valancourt insists that Emily will not be safe without his protection, and that their marriage is the only way to protect her from the dangerous Montoni. In his appeal to Emily, Valancourt even privileges his own physiognomic assessment of Montoni over the corroborating information he has obtained from the Italian: "Those dark hints of the Italian spoke much, but not more than the idea I have of Montoni's disposition, as exhibited even in his countenance. I think I see at this moment all that could have been hinted, written there."[224] The "hints" of the Italian pertain to "strange circumstances" in Montoni's past, in particular relating to the Castle of Udolpho, but more important to Valancourt is the villainy written on Montoni's countenance, which even Emily recognizes:

> She had never liked Montoni. The fire and keenness of his eye, its proud exultation, its bold fierceness, its sullen watchfulness, as occasion, and even slight occasion, had called forth the latent soul, she had often observed with emotion; while from the usual expression of his countenance she had always shrunk. From such observations she was the more inclined to believe, that it was this Montoni, of who the Italian had uttered his suspicious hints.

[223] Tytler, Graeme. *Physiognomy in the European Novel*: Faces and Fortunes. New Jersey: Princeton University Press (1982): 65.
[224] *Udolpho* 158.

However, while for Valancourt, Montoni's physiognomy is damning evidence of his true character, for Emily, it is a different kind of evidence, and not enough to base a decision on. While Emily trusts his judgement, she is in no positon to act on it. Decorum (and by extension her need for family intercession to preserve her inheritance) dictate that she ignores the "external truth" as Shaw and others would call it, and hope that Montoni's foreboding countenance is of the "accidental" variety, not the "permanent." Her decision reflects the conflict between sentiment and reason in the novel, in which reason is valorized by both St. Aubert and his daughter, while sentiment is clearly favored by Valancourt. For Emily, a feeling, or even an empirical assessment rooted in sentiment, does not qualify as strong evidence.

Despite its eighteenth-century evolution as a systematized scientific pursuit, Radcliffe's heroine recognizes that physiognomic observations and assessments are not enough to justify an action that might go against societal norms. The immediate sentimental attachment St. Aubert feels for Valancourt's is acceptable, because it does not have far-reaching social implications. His physiognomy is sufficient proof to establish a friendship between the travelers. However, because of her early education, Emily does not trust these types of proofs: she has been told from the beginning to control her sensibility in favor of reason, and reason does not support physiognomy as sufficient proof to justify actions that would go against her guardian's wishes. This is despite Lavater's clear privileging of sentiment in physiognomic assessment. In Volume one of Hunter's translation, Lavater asserts: "…—no, there is no need of judgement—

only give way to natural feeling."[225] The conflicting ideas here are not trivial; as much as Lavater strives to present physiognomy as an empirical science, its reliance on feelings above evidence makes it problematic for a character like Emily to practice.[226] While Valancourt (and St. Aubert before him) may allow his feelings to affect his actions, Emily has no such luxury; in this case, she must turn to the tools that her father gave her to negotiate the great world beyond La Vallée.

While Emily's initial response to Valancourt's revelations about Montoni shows a familiarity with physiognomy, and illustrates her belief in its powers to uncover the "latent soul" of a person, her eventual (more measured, or rational) response foregrounds what Claudia Johnson calls Emily's "manly education"—the scientific empirical education she received as a child.[227] Radcliffe allows the reader to watch the fruits of Emily's reason unfold: "as his imagination magnified to her the possible evils she was going to meet, the mists of her own fancy began to dissipate, and allowed her to distinguish the exaggerated images, which imposed on his reason…. though the countenance of Montoni seemed to give probability to a part of the rumour, it was not by such circumstances that an implicit belief of it could be justified."[228] Emily is her father's daughter. Although she recognizes the "signs of danger" in Montoni's features, she does not feel that there is sufficient evidence to trust her honor to physiognomical assessment alone. Unfortunately, by the time she discovers the additional evidence she needs to

[225] Hunter *Essays on physiognomy* (Vol. I, 3Er).
[226] There are, of course, larger problems with the practice of physiognomy and its historical connection to scientific racism, particularly in the later practice of phrenology and eugenics.
[227] *Equivocal Beings* 104.
[228] *Udolpho* 158.

conclusively prove Valancourt's (and her own) initial impression of Montoni, it is too late to save her from his "true," villainous intentions.

In this example, Emily fails to uncover the "truth" about Montoni not because she is unable to recognize or "read" the evidence—she is well versed in analytical physiognomy—but because she privileges reason over sensibility, rather than allowing her feelings to guide her analysis of the evidence before her. This is a stark contrast to Valancourt, who trusts both his eyes and his "gut," but whose impulsive reactions jar Emily (and the reader) into an understanding of just how subjective the practice of physiognomy is. For Emily, the risk to her honor is too great to trust to a form of evidence that at its core may not be recognized by others, such as her skeptical aunt. The—in many ways still feudal—power structures of courtship and marriage are more powerful and persuasive than her observations and conclusions about Montoni, which do not carry the weight of proof required by the "new" empirical methods established by the Royal Society following Boyle's experiments at the end of the seventeenth century.[229]

At its core, Emily and Valancourt's physiognomical assessment of Montoni tells us more about each of them as characters—and the relationship between them—than it does about Radcliffe's villain. In the end, although both character's judgement of Montoni's "true nature" turns out to be correct, Emily's principled stand against the misapplication of this "science" to justify an elopement against her family's will still stands as the best decision she could make to preserve her honor. At the same time,

[229] This, despite the fact that, as Tytler has explained: "there is little doubt that Lavater had at least inspired people to develop their powers of observation" (81).

Valancourt's rash assessment and proposal foreshadow his poor-decision making later in the novel. Although St. Aubert's original physiognomic assessment of Valancourt bears out as well, his actions are not as straightforward as his face might indicate, and for much of the novel, Emily and her lover are estranged due to reports of his actions in Paris. Eventually, Valancourt's name is cleared by Monsieur Bonnac, a man whose countenance supports his story as well as his honor: "there was something in his countenance uncommonly interesting; for over features, which, in youth, must have been remarkably handsome, was spread a melancholy, that seemed the effect of long misfortune, rather than of constitution or temper."[230] It is important that the melancholy cannot be attributed to his constitution or temper, as this would discredit the story he tells. The long misfortune his face reveals, in fact, culminates in the very circumstances that serve to reestablish Valancourt's honor in the eyes of Emily's protector, the Marquis de Villeroi. His physiognomy, in other words, corroborates Valancourt's story.

Of course, all of this is kept from Emily, so that when she does finally encounter Valancourt again, she is unaware of the change in his circumstances. This scene is punctuated by a lack of light, which strips away the physiognomic eye: "…the door of the chamber opened, and a person entered, whose features were veiled in the obscurity of twilight."[231] The "veiling" of Valancourt in this key moment brings Emily symbolically back to the famous black veil of Udolpho and the moment of her greatest misidentification; however, this time she is not distracted by the danger surrounding her,

[230] *Udolpho* 649-650.
[231] *Udolpho* 667.

nor stories of what lies before her. With no preconceived ideas about what may lie behind this veiled countenance Emily is able to use her other senses to correctly identify the figure: "…but his voice could not be concealed, for it was the voice of Valancourt!"[232]

With Valancourt's physiognomy hidden from Emily—the stage is set for a purely affective response. And, Radcliffe does not disappoint. Even still believing that he has debauched himself, Emily cannot hear Valancourt's voice without being "overcome by the various emotions, that contended at her heart," to the point of becoming "almost insensible to that voice."[233] This time Radcliffe's heroine does not become fully insensible, and this allows her to complete the work that her education in the domestic sciences, and physiognomy, has prepared her for: the gathering and interrogation of evidence to positively identify what is in front of her. In this case, Emily must balance the earlier physiognomic impressions of both her father and herself, with the accounts of Valancourt's nature from outside observers. Emily, who has learned not to trust her own eyes in the Gothic context of Udolpho, finds that the lack of sight allows her to follow her instincts to the conclusion that the reader has been in on for a while: Valancourt is worthy of Emily's esteem. Despite the deep twilight, Emily is ultimately convinced of Valancourt's innocence through a combination of physical and aural evidence: "his look, his voice, his manner, all spoke the noble sincerity, which had formerly distinguished him."[234] With the addition of exonerating information, and the acceptance of sentiment as a form of evidence, Emily "sees" Valancourt anew.

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[232] ibid
[233] ibid
[234] *Udolpho* 669.

Radcliffe does not draw a hard line between physiognomy and other empirical sciences in *The Mysteries of Udolpho*. Although, at times the types of empirical observation both privileged and upheld by and the domestic sciences appears to stand in contrast to the decidedly sentimental engagement required by physiognomy, it is precisely this combination of empiricism and sentiment that Radcliffe's novels uphold. In fact, it is Emily's initial failure to incorporate sentiment into her reasoned observations, including her initial physiognomic assessment of Montoni, that causes many of her problems. So, while Emily's overt sensibility is often blamed for her inability to unravel the mystery of the castle of Udolpho due to inadequate observation, her physiognomical assessment—although initially successful—is similarly attenuated by a distrust of the sentiment required to form such an assessment. The key to understanding this division is to go back to Emily's early education (treated at length in chapter 2) in which she is introduced to empirical science as a way of viewing the world around her. In this way, the discrepancy between Emily's judgment of other characters, and her actions comes down to the division between reason and emotion that St. Aubert worked so hard to instill in his daughter in the beginning of the narrative. Emily's father teaches her that sensibility is a liability, while reasoned observation (learned in nature) is the path to security and happiness. The very sentimentality that St. Aubert unsuccessfully tries to eliminate in his daughter (and himself), is as important in physiognomic assessment as physical observation and categorization; in fact, it is her reliance on rationality—at the expense of sensibility—that keeps Emily from acting on much of the evidence, both physiognomic and otherwise, that she is able to successfully gather. In the end, it is only

by trusting her feelings and allowing an affective, sentimental engagement with Valancourt, that Emily is able to acknowledge what her father recognized at the beginning: Valancourt is of good character.

The scenes with Montoni and Valancourt are not Emily's first engagement with physiognomic assessment, although they offer the most drawn-out and tested examples of analytical physiognomy in practice. Shortly after she returns from the trip on which she meets Valancourt, and is adjusting to life at La Vallée without her father (friendless and awaiting instructions from her paternal aunt), Emily finds the miniature that forms the foundation for one of the great mysteries of the novel:

> Emily still gazed on the countenance, examining its features, but she knew not where to detect the charm that captivated her attention, and inspired sentiments of such love and pity. Dark hair played carelessly along the open forehead; the nose was rather inclined to aquiline; the lips spoke in a smile, but it was a melancholy one; the eyes were blue, and were directed upwards with an expression of peculiar meekness, while the soft cloud of the brow spoke of the fine sensibility of the temper.[235]

This detailed physiognomic description, what Tytler calls "Emily's physiognomical eye,"[236] is one of the few instances of descriptive physiognomy in the novel; that is, it is one of the first times we have a description of a character's physiognomy, rather than of the process of physiognomic assessment itself. Radcliffe's description of the miniature evokes the language of Hunter's Lavater, with its emphasis on sympathetic response, coupled with evidence gathered from empirical observation. In Lavaterian physiognomy, the sentiments of "love and pity" are as necessary to the description as the listing of

[235] *Udolpho* 104.
[236] *Tytler* 164. It is worth noting that Tytler claims that this is a description of Valancourt, by Emily, a misreading. In fact, Emily's judgement of Valancourt is largely filtered through the physiognomical assessment of her father.

physical attributes, such as hair and eye color, the "open forehead," and "aquiline" nose. And, in Radcliffe they are as well.

Emily feels an instant connection to the image in the miniature that is so strong that she actually questions whether this woman might be her birth mother. It is with the aim of solving this mystery that Emily engages in this act of physiognomic description; however, like her father, Emily is very careful to separate physiognomy from the other forms of evidence gathering she engages in. In this way, Emily and St. Aubert—although both are identified by Madam Cherone as having a weakness for "sudden predilections for people from their looks"—differentiate between physiognomy and other forms of empirical evidence.[237]

Lavater's English translators would have taken exception to this separation between physiognomy and other scientific pursuits (with the exception of mathematics);[238] they worked tirelessly to place his work, and physiognomy in general, in the greater scientific culture of the age. This included a gesturing toward a burgeoning "scientific method," the language of which (observation and reflection) was couched in terms from the Boyle and the Royal Society.[239] Radcliffe's heroines hold physiognomy as separate from reason, as we can see in the example of Emily's assessment of Montoni, as well as her engagement with the miniature. However, this was not Radcliffe questioning

[237] *Udolpho* 112.
[238] As Shaw states, "Physiognomy is as capable of becoming a science as any one of the sciences, mathematics excepted. It is a branch of the physical art, and includes theology and the belles lettres. Like these, it may, to a certain extent, be reduced to rule, and acquire an appropriate character, by which it may be taught" (B1r).
[239] Lareo, Inés and Ana Montoya Reyes. "Scientific Writing: Following Robert Boyle's Principles in Experimental Essays" *Revista Alicantina de Estudios Ingleses* 20 (2007): 121.

scientific methods, per se. Rather, her novels can be read as a part of a broader social questioning of the "enlightenment" as a project: of the social application of scientific inquiry, and the negotiation between sentiment and reason.

In her tracing of the image's features, Emily is hoping to discover some hidden connection between the woman who the miniature represents and her own past. The miniature itself is the sole survivor of a trove of information kept hidden from Emily by her father. Through an inadvertent glance, she has been able to ascertain that some of the papers that were stored along with the miniature pertained to a woman who she had never heard of; however, in following her father's directive to destroy those papers, Emily has left herself with nothing but this image to guide her through the mysteries of her family's past. Armed solely with the name Marchioness of Villeroi, and the ability to "read" the face in the image, Emily manages to learn a great deal about the woman whose likeness it bears. Later in the novel, when Sister Agnes, formerly Signora Laurentini of Udolpho, describes the character of the Marchioness de Villeroi, we see how Emily's earlier judgements, based solely on the figure in the painting, were accurate to the accounts of her aunt's temperament. Through the discovery of another portrait of the Marchioness, along with the reactions of the de Villeroi housekeeper and Laurentini when confronted with the living likeness of the late Marchioness, the reader can also conclude that Emily's affinity for the miniature might also be reflective of the physiognomical idea of affinity:

Emily bears a striking resemblance to the Marchioness, and the image she feels such an affinity for is in many ways her own.[240]

Friendship, whether social, marital, or familial, is one of the most unstable categories in Ann Radcliffe's novels. But those friendships that are based upon physiognomy prove to be the most stable, founded on what the author presents as a "true self" that recognizes, and develops an affinity for others of a similar temperament. From Monsieur La Luc and Valancourt, to Emily and the Marchioness in *Udolpho,* to Clara and Adeline in *Romance,* friendships based on physiognomy withstand the tumult of the Gothic mode in a way that demonstrates an active interest in this pseudo-science.

However, Ann Radcliffe's use of physiognomy is not uncritical: La Luc practices physiognomy, but wouldn't trust his daughter to it; Emily trusts her physiognomical assessments, but not enough to condemn a man and jeopardize her honor; and both Mme La Luc and Mme Cheron actively condemn the practice as both silly and a dangerous form of prejudice. In these ways, physiognomy is questioned, but also upheld in *Romance* and *Udolpho*. The dissonance between the descriptive physiognomy of the narrator—those descriptions that give the reader a glimpse of a character's "true nature," is problematized by the practice of analytical physiognomy by key characters. These characters challenge the practice as a science, even as the narrative itself shows physiognomic assessment as successful. Just as Kevin Berland asserts that "physiognomists must confront the problem of dissonance, the apparent discrepancy

[240] As Diane Long Hoeveler asserts "The sad fact is that Emily St. Aubert cannot recognize the face in the miniature as her own because she cannot accept the fate of woman as her own (92). Hoeveler, Diane Long. *Gothic Feminism: The Professionalization of Gender from Charlotte Smith to the Brontës*. University Park, Penn.: Pennsylvania State University Press (1998).

between the evidence of an individual's face and reliable knowledge of that individual's character," in these novels the reader must confront the dissonance between telling descriptions and the reflexive practice of physiognomy by the heroines and heroes of the stories.[241] Unlike the other sciences in Radcliffe's novels, physiognomy is no longer recognized as a science (because it is an inherently prejudiced and racist practice, but also because it is patently impossible to tell a person's true nature by their facial features),[242] but in *Udolpho* and *Romance,* it is presented as a key force behind friendships and a motivation to solve mysteries, as well as a way to establish the "true nature" of key character. As Lavater proposed, "Connections which are the result merely of interest and circumstances, change together with these… It is not thus with the friendship which arises out of a Physiognomical conformity; it lasts as long as the Physionomies themselves."[243] Although friendships are challenged in *Romance* and *Udolpho*, physiognomies remain a consistent indicator of both character and the connections forged through physiognomic assessment.

If Adeline St. Aubert and Clara La Luc are typical of Radcliffe's "delicate, symmetrical" heroines, Ellena di Rosalba from *The Italian* is of another physiognomical class from the beginning. Unlike Radcliffe's previous heroines, we first "see" Ellena through the eyes of her lover, and because of this, her looks do more than inspire tender, protective feelings: they seem to infect the hero Vivaldi with an ill-advised obsession

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[241] Percival and Tytler 28.
[242] "In his pictures, the Frenchman, the Englishman, and the Circassian, must appear as they really are, formed in Nature's fairest shape; while the Calmouck and Greenlander should be represented in their true light, with diminutive eyes, shapeless faces, and hollow nostrils. The Caribee should likewise be distinguished by his flat skull and piercing eye" (*Lavater's Looking Glass* C2v-C3r).
[243] Hunter *Essays on physiognomy* V3.2 O1r

reminiscent of medieval love poetry.[244] The description of Ellena and Vivaldi's first encounter mirrors the scene in which Emily identifies Valancourt in the dark by his voice in key ways; In both scenes, the lover's form is present, yet shrouded from view; and in both instances, the voice communicates something that is (or will be) substantiated by the countenance. For Vincentio di Vivaldi, the form and the voice of Ellena emerge out of the darkness of a crowded church, but even so obscured, capture his attention immediately: "So much indeed was he fascinated by the voice, that a most painful curiosity was excited as to her countenance, which he fancied must express all of the sensibility of character that the modulation of her tones indicated."[245] Although it is Ellena's voice that first draws his attention, Vivaldi cannot take his eyes off "her person" throughout the matins service.

Once Vivaldi, and by extension the reader, does get a glimpse of the mysterious Ellena outside of the church, we are greeted with a description that indicates the reciprocal knowledge exchanged in this moment, even though Ellena is the only one described. In this encounter, Ellena is clearly conscious of the vital role that physiognomy plays in social relations: "…the moment her eyes met those of Vivaldi, she became conscious of their effect, and she hastily drew her veil."[246] This consciousness defines Ellena's understanding of the power of the face to affect the feelings in a way that

[244] In fact, the scene in the church mirrors the medieval trope of love being a physical contamination of sorts, caught through eye contact. John Donne famously uses this idea in his poem, "The Ecstasy," as do Boccaccio, Petrarch, and others.
[245] Radcliffe, Ann. *The Italian*, ed. Frederick Garber with an Introduction and Notes by E. J. Clery. Oxford: Oxford University Press (1998): 5.
[246] *The Italian* 6.

is akin to an infection of the heart. This scene also establishes the motif of the veil/cowl in *The Italian* as a tool not of modesty, but of privacy and protection.

Her eyes sparkling with "intelligence," Ellena is not the meek, ingénue represented by both Adeline and Emily before her,[247] but what I would argue is a more fully actualized Radcliffean heroine from the beginning. Although her circumstances are similar—she will soon be left friendless—Ellena shows herself adept at making decisions for herself from the beginning. She is a woman who is aware of the power that her face allows her, but she is not interested in using that power to manipulate her circumstances. In order for Vivaldi, and the reader, to assess Ellena's physiognomy, first her veil must be removed (as in *Udolpho*) to reveal the mystery of the figure beneath: "…the breeze from the water caught the veil… and, wafting it partially aside, disclosed to him a countenance more touchingly beautiful than he had dared to image. Her features were of the Grecian outline, and, though they expressed the tranquility of an elegant mind, her dark blue eyes sparkled with intelligence."[248] This description draws from the primacy of a "classical vocabulary of beauty" in both physiognomy texts and drawing manuals at the end of the eighteenth century: "Lavater's insistence on external form (albeit often a single contour as, for example the silhouette) encouraged artists to abandon a concern with structures and to deal, instead, with surface appearances, whether directly observed or mechanically

[247]Both Emily and Adeline must evolve out of the helpless innocent role ascribed to them, while Ellena—although she will find herself helpless at times—begins the narrative as a more complex physiognomic type.
[248] ibid

recorded."[249] As we shall see, Radcliffe's physical descriptions of her heroines in *The Italian* pull from the traditions of both direct observation and art.

Ellena's "Grecian outline" is important to Radcliffe's narrative, because it allows her Catholic heroine to be subsumed into a classical framework that separates her from the "other" represented by the titular Italian of the narrative. This is especially important when it is discovered that she is a direct relation of the monk Schedoni, whose physiognomy is most definitely not classical; it is therefore the "Greek" countenance that sets Radcliffe's heroine apart from not only her own family, but the suspicion that surrounds Catholicism in general in the novel. Miriam Leonard makes a similar argument about Lavater's description of Mendlessohn in Hunter's translation of his Fragments: "Although Lavater 'revels' in Mendelssohn's physical features, it is ultimately his "Socratic soul" that draws his attention. Lavater sees through Mendelssohn's Jewish body to his Greek soul."[250] Both Lavater's Mendelssohn and Ellena di Rosalba are described as separate from their kinsmen and their "suspect" heritage through their Greek physiognomy.

Ellena's connection to the classical Greek form is not offhanded or accidental. Later, when Vivaldi is peering through the dense foliage surrounding her house in hopes of gaining another glimpse of Ellena—again it is not enough for him to hear her voice, it is her face that carries real power over him—she is once again described as decidedly non-Italian: "The light drapery of her dress, her whole figure, air, and attitude, were such

[249] Woodrow 85.
[250] Leonard, Miriam. "Greeks, Jews, and the Enlightenment: Moses Mendelsohn's Socrates" *Cultural Critique* 74 (2010): 188.

as might have been copied for a Grecian nymph."[251] This time, her dress, hair, and attitude are seen not as models of, but models for Grecian representation. In other words, she is not a mere imitation of classical form, but an original. This is important because eighteenth century physiognomy was rooted in the idea that the outer form mirrored the inner spirit. In this way, we can read Ellena's soul as of the classical line from which Lavater (and others) traced the origins of Western civilization. Combined with the "Grecian outline" of her countenance, which now glowed with devotion, Ellena represents the perfect Lavaterian subject, both classical and soft, and easy to read because her exterior, like the open lattice work through which Vivaldi views her, is metaphorically "thrown open" in this moment to reveal the pious intelligence within. Her actions and her person collude with her physiognomy to present proof that Vivaldi's initial impressions of Ellena were just.

Although he is the first in the novel, Vivaldi is not the only person who uses descriptive physiognomy to make decisions about the character of a person. The initial object of physiognomy, Ellena, herself utilizes a complex system of physiognomic assessment that surpasses Vivaldi's rather simplistic practice, while adding to Radcliffe's complex relationship with the "science." When Ellena finds herself in the hands of a harsh mother superior she feels hopeless and alone, until she hears what sounds like a sympathetic voice. In an attempt to discover a kindred spirit, Ellena "looked to the gallery where the nuns were assembled, to discover a countenance, that might seem to accord

[251] *The Italian* 12.

with the sensibility expressed in the voice."[252] However, as Ellena searches the gallery where the singers are gathered, "she saw little that interested her in their various faces."[253]

From a distance, it is impossible to tell from which nun the voice emanates, so Ellena relies on physiognomy to distinguish Olivia from the other nuns around her. Initially, she must use only a silhouette to identify the nun whose voice has expressed such sensibility, a physiognomic technology that Lavater promoted: "Lavater placed primary importance on the ability of the silhouette to reveal an individual's character…" according to Ross Woodrow, and even developed a special apparatus to improve upon silhouette making techniques.[254] In this scene, Olivia's face is concealed by a diaphanous veil that allows the light behind her to shine through in a description that foregrounds the technology of the silhouette, rather than the product. Radcliffe's description of the sheer veil, along with the lamp, "which threw its rays aslant her head," allows the reader to interpret Radcliffe's description as an inquiry that is as concerned with how the image is made as the image itself. This process-oriented description continues, even as we begin to gather more information about the subject, finally giving way to the first images of Olivia: "Her face was concealed by a black veil, whose transparency, however, permitted the fairness of her complexion to appear; but the air of her head,… sufficiently indicated the superior degree of fervency and penitence, which the voice had expressed."[255] In this

[252] The Italian 86.
[253] ibid
[254] Woodrow, Ross. "Lavater and the Drawing Manual" in *Physiognomy in Profile*, eds. Melissa Percival and Graeme Tytler. Newark: University of Delaware Press (2005): 87. For more information about Lavater's silhouette machine, see Tytler: 58.
[255] *The Italian* 86.

description, the "air of her head," afforded by the living silhouette, gives Ellena an indication of the woman's character sufficient to identify her as the source of the voice.

The screening fabric and backlighting that frame Ellena's first view of Olivia closely mirror the many descriptions and engravings of Lavater's "silhouette machine," published in Hunter's translation of his *Essays* and reprinted elsewhere.[256] With this in mind, while Radcliffe's description of Ellena's initial physiognomic assessment of Olivia may be viewed as more sentimental than scientific, the very nature of the silhouette, described in relation to this process of veiling and backlighting, puts Radcliffe's description into the realm of scientific inquiry and description that Lavater promoted in his "new" system of physiognomy. As Ross Woodrow explains in "Lavater and the Drawing Manual," the silhouette machine was "closely allied" to the use of the *camera obscura* during the eighteenth century,[257] a method of drawing from life that was elevated in scientific usefulness by early eighteenth-century anatomist (and great-uncle to Ann Radcliffe) William Cheselden.[258] Similarly, Radcliffe's inclusion of not only rhetorically complex physiognomic assessment, but the use of a proto-silhouette machine to gather evidence, gives authority to her character's use of the "science."

[256] Illustration titled "Vol. II, p. 112" in the edition of Hunter's translation cited in n. 1 of this chapter. See also "A sure and convenient machine for drawing silhouettes" from Lavater's *Physiognomische Fragmente*, reprinted in Tytler's, *Physiognomy in the European Novel* 58.
[257] Woodrow, Ross. "Lavater and the Drawing Manual" in *Physiognomy in Profile*. Newark: University of Delaware Press (2005) p. 87. Images of Lavater's "Silhouette Machine" were printed in various editions of his Essays; an engraving of the camera obscura was
[258] Cheselden notably included an engraving of a camera obscura being used in the illustration process of the book on the title page of his *Osteographia*, to lend scientific authority to the images contained within.

It is no surprise, when in "full light," and unveiled, Ellena discovers in Olivia "a countenance, that instantly confirmed her conjecture."[259] Like her predecessors in *Romance* and *Udolpho*, Olivia's countenance prejudices Ellena in her favor. Unlike her predecessors, the reader is given a rather complex reading of Olivia's physiognomy: "[Ellena] fancied she could perceive the calmness in her countenance to be that of despair, rather than resignation; for,… there was frequently a fixedness in her look, too energetic for common suffering, or for the temper of mind, which may lead to perfect resignation."[260] Olivia's character does not allow her to resign herself an unhappy situation, a fact that the skilled physiognomist could recognize at first glance, nor could her countenance have been formed by "common suffering." This is reinforced when Olivia is subsequently compared to the portraits of Renaissance painter Guido Reni, who, as E. J. Clery points out, "painted in an idealizing, sentimental style especially admired by eighteenth-century connoisseurs."[261] Olivia is likewise idealized in this physiognomic exercise: described as at once a silhouette, a living countenance, and a classical portrait to be analyzed.

Like St. Aubert and Clara La Luc before her, Ellena fulfills the Lavaterian understanding of sympathetic physiognomies with her instant attachment to Olivia. The nun countenance had, "much that attached the sympathy of Ellena, and much that seemed to speak a similarity of feeling."[262] It is important here to recognize that the comfort that

[259] *The Italian* 86.
[260] ibid
[261] Clery, in *The Italian*, 419 n.86. Reni's most famous subjects included Cleopatra, Lucretia, and a number of martyred saints.
[262] *The Italian* 86-87.

Ellena gains from discovering a kindred spirit in the convent, comes from more of a one-sided observation than a meeting. In fact, no words are exchanged between these two women at the point when Ellena decides that Olivia would be of the temperament to console her. Although their eyes meet briefly in a brief encounter that the reader will come to recognize as a moment of recognition on Olivia's part, the recognition that Ellena has of Olivia's true character (if not her true identity) is what frames their first encounter.

Immediately after this encounter, Ellena seeks to obtain more information about the nun whose name she does not even know, but whose countenance, "cannot but interest all who observe her."[263] Here we presented with a stark contrast between her physiognomic skill and the ignorance of her conductress. As Ellena attempts to describe Olivia in physiognomic terms, she "forgot she was describing her to a person, whose callous heart rendered her insensible to the influence of any countenance,…and to whom, therefore a description of the fine traits, which Ellena felt, was as unintelligible as would have been an Arabic inscription."[264] Radcliffe presents a Lavaterian physiognomy here, that relies on sensibility to make sense of the physical evidence provided by the face. The conductress, lacking the ability to "feel" the fine traits as Ellena does, is unable to identify the person of whom she speaks. These physiognomic descriptions are likened to a foreign language, one which Ellena is clearly fluent in, but the conductress lacks the skills—both of analysis presumably, and of sentimental engagement—to understand this

[263] *The Italian* 87.
[264] ibid

language. To her, physiognomy may as well be "Arabic script," both unfamiliar in form and unintelligible in content.

The early scenes in the convent show the heroine Ellena using evidence ranging from: her initial impression made by voice, to a series of physiognomic assessments—building from the simplified silhouette, to the full face, to the comparison of the subject's features to a style of art "especially admired by eighteenth-century connoisseurs" to identify a sympathetic character in a time of need.[265] It also mirrors the earlier discovery and description of Ellena herself by Vivaldi. Like Vivaldi's initial impressions of Ellena, the descriptions of Olivia are rooted in physiognomic assessment, provoked by other physical manifestations of goodness such as the voice. In this formulation, the voice expresses an internal goodness that can only be confirmed by a correspondingly structured countenance.

It is no mistake that this goodness is expressed by (and perhaps rooted in) beauty. Lavater and other physiognomists drew direct correlation between beauty and inherent goodness. In "Fragment Sixteenth. Of the harmony between moral beauty and physical beauty," in Hunter's translation, Lavater asserts:

> A movement, a direction of features frequently repeated, produce at length a lasting impression on the flexible parts of the face, and affect the bony and solid parts from infancy upwards…. A graceful impression repeated a thousand times, engraves itself on the face, and forms a trait at once beautiful and permanent.---- In like manner, a disagreeable impression, by frequent repetition, fixes at last on the countenance habitual marks of deformity. A multiplicity of these agreeable traits meeting in the same Physiognomy (every thing else being equal) will produce upon the whole a beautiful face; and the union of many disagreeable traits will as certainly render a visage ugly."[266]

[265] Clery, in *The Italian*, 419 n.86
[266] Hunter *Essays on Physiognomy* (Nn2v).

Ellena's complex observation of Olivia's complex countenance includes speculation on how her pious suffering has rendered her face, although melancholy, beautiful. Her insistence on the older nun's beauty is foregrounded in Ellena's attempts to obtain more information about her, at which point she is assured that many of the sisters are "very handsome."[267] The disconnect here is in the way that Ellena conceives of beauty. Having found nothing interesting in the countenances of the other nuns, she also neglects their potential beauty; although they may be aesthetically "handsome," their physiognomies do not betray the "graceful impression repeated a thousand times" that illuminates the "morally beautiful" Lavaterian subject.

Like Adeline and Emily before her, Ellena is an orphan who carries with her a family mystery. Also like Radcliffe's other heroines, Ellena must face a threatening father-figure before she can (re)gain her proper role in society. The mysterious villain in The Italian has received more critical physiognomical attention than any other of Radcliffe's characters, but he still deserves further consideration.

Unlike Ellena, who is presented as a physiognomic "type"—the Greek ideal—, or Olivia, who is compared to a Renaissance painting, Schedoni's physiognomy is described as unique almost beyond comparison: "There was something in his physiognomy extremely singular, and that can not easily be defined… and his eyes were so piercing that they seemed to penetrate, at a single glance, into the hearts of men, and to read their most secret thoughts; few persons could support their scrutiny, or even endure to meet

[267] The Italian 87.

them twice."[268] This description fits with the character of a mysterious, scheming monk, who the reader first encounters in the shadows of some ruins along a deserted road. And, it goes a long way toward explaining Radcliffe's description of physiognomy as something that seems very obvious to some characters (Valancourt and Vivaldi, most notably) but that is not actually that easy to define because it is not just a a scientific assessment, but a sentimental one as well: Schedoni's eyes aren't just "piercing," they provoke a reaction in the viewer that is visceral, indescribable, and decidedly emotional.

In some respects, Schedoni is a case study for Lavater's ideas about how the passions, and not just inborn character, are inscribed on the face. This idea is born out of pathognomy, a corollary to physiognomy that helps to explain the ways that "passions" can be read on the face in the same way that inborn character can. This is different than physiognomy, in that pathognomy seeks to understand emotions that are not necessarily permeant. Radcliffe plays with these distinctions in The Italian when she describes how it is possible that Schedoni's physiognomy has changed over the years—to the point of making him unrecognizable to a former servant. A justification for this overlap between the two practices can be found in Lavater, who describes the relationship between character and actions as reciprocal, rather than one way, so that passions may influence a physiognomy over time. This does not erase the boundaries between the two practices, but it does show how extreme passions may ultimately influence a person's character. In other words, while physiognomy may indicate inborn character, as in the case of Ellena, but it may also show how the passions affect a character over time, as in the case of

[268] *The Italian* 35.

Schedoni. According to Lavater's phsiognomy, habitual actions, thoughts, even feelings are inscribed on the permanent record of the face in the same way that inborn character is.

Radcliffe's narrators, and her characters, practice both physiognomy and pathognomy in describing her villains. In fact, Radcliffe's descriptions of her villains, including Schedoni, are by nature more complex because they take into account the effect that very strong emotions have on a countenance over time: "[Schedoni's face] bore the traces of many passions, which seemed to have fixed the features they no longer animated. An habitual gloom and severity prevailed over the deep lines of his countenance…."[269] This scene, described as a "cinematic 'close up'" by Mighall, indeed invites the reader to analyze for herself the character before her.[270] Even as it speculates on the passions that have created this "extremely singular" physiognomy, it invites the question of whether Schedoni's villainy is a function of his natural character, or if it is born of unchecked natural passions (those things that Radcliffe's gothic fathers—La Luc and St. Aubert—warn their daughters about). The gesture toward pathognomy her serves to both support and undermine the use of physiognomy to "know" a person. According to pathognomy, a lamb may become a lion, and rarely, a lion many become, if not a lamb at least a tame lion. But read in relation to physiognomy, this change would be as visible on the face as the original character, if not more so.

[269] *The Italian* 35.
[270] Mighall 175.

This relationship between pathognomy and physiognomy helps to explain the confusion around the miniature that Ellena wears around her neck, and which proves to be her saving grace in the eyes of Schedoni. When Schedoni first sees the miniature, he is moments away from murdering the unfortunate young woman he has kidnapped at the behest of his Mistress.

The miniature is not the only moment of confusion surrounding identity and physiognomy. Late in the novel, Schedoni stands trial under the Inquisition for the murder of his brother—and Ellena's actual father—the Count di Bruno. When one of the witnesses testifies that Schedoni is also responsible for the death of his wife (who was previously the wife of his slain brother—this is Radcliffe after all), the vicar-general demands proof of the identity of the witness, who is readily identified by a man who remembers the witness as a servant of the Count (now Schedoni), but cannot attest the identity of Schedoni himself: "The grand-inquisitor remarked, that it was extraordinary he should recollect the face of the servant, yet forget that of the master, with whom he had lived in habits of intimacy. To this Ansaldo replied, that the stronger passions of Schedoni, together with his particular habits of life, might reasonable supposed to have wrought a greater change upon the features of the Count than the character and circumstances of Giovanni's could have affected his."[271] In this moment, Radcliffe reinforces the earlier idea that the passions of Schedoni, his unchecked inner nature, have combined with his actions to create the changes on his face that make him unrecognizable to Ellena from the miniature. She has this information come from a servant, whose

[271] *The Italian* 364.

complex understanding of physiognomy changes the course of the trial: "[Ansaldo's] further testimony gave such clearness and force to some other parts of the evidence, that the tribunal pronounced sentence upon Schedoni…."[272] This act of analytical physiognomy is accepted without question by the tribunal, and as it echoes the narrator's earlier musings about how the unchecked passions and actions of man may affect his appearance, physiognomy seems to be elevated in this moment.

It is important to note that unlike the earlier examples of descriptive and analytical physiognomy presented in the novel, the analytical physiognomy practiced in the inquisition scenes is used primarily for identification purposes. This stands in stark contrast to Valancourt's use of physiognomy to condemn Montoni, and attempt to persuade Adeline to elope with him, in *Udolpho*. In these later scenes of *The Italian*, Schedoni is neither accused, nor convicted upon the evidence that his face bears of his character and crimes. Rather, a combination of pathognomy and physiognomy are used to help explain how difficult it can be to positively identify a man who has been living under an assumed identity for so long. The described change in Schedoni's physiognomy supports key plot points that depend on his true identity being kept a secret, but they do not condemn him. Once that identification is made, it is Schedoni's actions, not his physiognomy, that he stands trial for.

Never is it said that Schedoni's physiognomy can account for his crimes; rather, it is argued that his crimes may account for his physiognomy. This shows a sophisticated understanding of physiognomy as both a useful science of description, while at the same

[272] ibid

time upending the idea that the "science" of physiognomy is capable of exposing a deeper "natural" truth. It is a subtle difference, and one that stands in contrast to Ellena's earlier, extended physiognomical assessment of Olivia.

When we look closely at the instances of physiognomic description and practice within *The Romance of the Forest*, *The Mysteries of Udolpho,* and *The Italian* we can begin to see how Ann Radcliffe engaged with not only the "science" itself, but with the debates surrounding it at the end of the eighteenth century. Her character's and her narrator's practice of descriptive and analytical physiognomy not only provide clues for how to read the characters, but provide the basis for how the heroines and heroes themselves make decisions. This critical engagement shows an interest in what was developing into a fashionable practice at the end of the eighteenth century, but certainly not a blind faith in it.

Much like her engagement with other empirical sciences and scientific philosophies, such as botany, astronomy, and anatomy, Ann Radcliffe's presentation of physiognomy is complex, and worth further study. In fact, by looking closer at the ways in which Radcliffe engaged with the idea of the wax figure, we may discover other ways of understanding how an interest in physiognomy informed one of the most lasting material aspects of the French Revolution: the modeling (and at times, preservation) of decapitated human heads.

Chapter 4

Not Merely "Monkish Superstition": The Science behind *Udolpho*'s Wax Figure.

"*Thus, for example, after all the wonder and dismay, and terror and expectation, excited by the mysterious chamber in the castle of Udolpho, how much are we disappointed and disgusted to find that all this pother has been raised by an image of wax!" -John Dunlop*

In his 1814 *History of Prose Fiction,* John Colin Dunlop expresses a common frustration about Ann Radcliffe's habit of explaining the major mysteries of her novels. This frustration is compounded by the fact that the explanations for many of the "marvelous circumstances" presented in her later works, the solutions seem implausible, or worse, anticlimactic to the reader who expects to find some supernatural elements in Gothic fiction. In particular, he notes, "we feel disappointed that we should have been so agitated by trifles."[273] However, many of the things that Dunlop refers to as "trifles" are insignificant at all. Some, such as the full-scale human waxwork in *The Mysteries of Udolpho,* can also be read as complex statements on cultural and scientific practices. In the case of this curious object, Radcliffe's uses an object that has a long, scientific history in Italy and Europe, playing upon its liminal status in England and obscuring its cultural and scientific significance at the end of the eighteenth century.[274] Although many waxworks collections in Italy and England at the end of the eighteenth century had taken on the more common use of cultural spectacle for tourists and locals alike, these objects still held scientific value for anatomists, physicians, midwives, and surgeons. To better understand the anatomical wax figure, and its potential implications for the narrative and

[273] Dunlop, John Colin. *History of Prose Fiction: Being a Critical Account of the Most Celebrated Prose Works of Fiction, from the Earliest Greek Romances to the Novels of the Present Age*. Volume 3. Edinburgh: James Ballantyne and Co. (1816) 475.
[274] Radcliffe, Ann. *The Mysteries of Udolpho*. Oxford: Oxford University Press (2008): 662-663.

for Radcliffe's relationship to romantic science, we have to look closer at the history of waxworks in Europe.

Towards the end of *The Mysteries of Udolpho,* Ann Radcliffe's narrator gives a "brief history of Laurentini di Udolpho," the former mistress of the castle whose disappearance forms the central mystery of the novel. In this interpolated narrative, Radcliffe employs the "explained supernatural" to explain how the heroine (and the readers themselves) have been misreading the evidence provided by the narrative, thereby arriving at wrong conclusions about mysterious incidents throughout the novel. This misreading is connected to Emily's education in botany (treated at length in the first chapter of this dissertation), and her inability to observe properly according to the dictates of Rousseau and others. Because of this, she both misses key details that would have been found upon close observation, and fails to pass them on to the reader. Much like an intercalary meristem in botany, this inserted narrative is situated within the fully developed plot of the novel, touching it, but not fully subsumed into its action.[275] In literary terms, the history of Laurentini di Udolpho is a moment for the reader—an aside—but it is also positioned as a lesson for Emily, who reacts to Laurentini's story with both horror and relief.

Many dark and nefarious facts are revealed about the former mistress of Udolpho in this passage, but none more interesting than the explanation of what lies behind the black veil in the western chamber of the castle. Readers will remember that the veil has concealed something so shocking that it caused our otherwise (fairly) capable heroine,

[275] For more on Ann Radcliffe's relationship to romantic botany, see the first chapter of this dissertation.

Emily St. Aubert, to "lose her senses." After seeing our heroine encounter multiple dead bodies, banditti, threatened rape and forced marriage, as well as imprisonment in a medieval castle under siege, imagine our surprise to read that the object too terrible to describe, "was not human, but formed of wax."[276]

At first read the idea of a waxwork being something to inspire terror in a novel full of genuine murder and intrigue may seem implausible. In this context, Dunlop, and others like him who disparage the wax figure as a "trifle," read the waxwork as a fiction that must be exposed in order to show how the heroine's sensibility is a liability to empirical knowledge. However, this ignores both the history of the wax figure during Radcliffe's time and the context of the figure in *Udolpho*. Rather than a simple solution to a complex mystery, the figure behind the veil illustrates that for Radcliffe, the fact/fiction divide was not as clear as the explained supernatural would indicate.

The explanation at the end of *Udolpho* may feel unsatisfying to many readers because it presents as fact what are themselves inherently fictions, such as the history of the wax figure in the niche at Udolpho. These fictions fail to adequately explain the "rational" causes for the mysteries encountered by the Radcliffean heroine, while ignoring the true history of the object being held up as proof. In many ways, the most maligned instance of the "explained supernatural," the wax figure in the castle of Udolpho itself illustrates a privileging of English "reason" over Italian "superstition," or more generally of factual evidence over fiction, exemplified by the rhetorical divide

[276] Radcliffe 662.

between bodies and their representations.[277] However, the narrator's explanation fails to fully explain why this ostensibly harmless and banal object might elicit such a strong response from Emily. This puts the burden of interpretation on the reader, who has also been kept in the dark about the object, and so is only able to understand its significance at the moment of the narrator's explanation. In this way, the explanation itself, although presented as fact, brings up questions around truth, reality, and observation in the gothic mode. If the figure behind the veil is made of wax, what does that mean about Emily's conclusions about Montoni? Or anything else for that matter?

Radcliffe's words, and work, speak to a greater cultural insecurity about the anatomical wax figure as evidence, and the role that it played in people's understanding of both the human body and the world of science. During the eighteenth century, anatomical wax figures functioned as both literal and allegorical representatives of the human body, as well as objects with their own attributes and meanings. To better understand the wax figure as both fact and fiction, we need to know more about their origins and uses in Italy and England.

Scientific experimentation and its results were often tied to the macabre during the eighteenth century—from Joseph Wright of Derby's famous painting, "The Bird in the Air Pump," to public dissections in major European cities, to Galvani's public experiments with electricity on human and animal bodies, knowledge production was often publicly tied to the types of spectacle critiqued by Gothic literature. Early

[277] Radcliffe's "explained supernatural" has a long history of criticism. As Terry Castle explains: "Scott… was one of the first to blame Radcliffe for supplying anticlimatic 'rational' explanations for the various eerie and uncanny events in her novels,…. But modern critics have been similarly put out—that is, when they have bothered to write about Radcliffe at all" (120).

anatomical wax figures, themselves often based upon cadavers, were an integral contribution to the pursuit of knowledge about the human body, and were closely tied to the fact/fiction divide that we see throughout Ann Radcliffe's Gothic model, in particular in the division between what can be (and is) known by her heroines, and what is revealed by the omniscient narrator at the end of her novels.

In fact, the explained supernatural itself is in many ways a revelation of how our senses can trick us into believing false narratives, causing us to create alternative explanations for the evidence in front of us. However, the fact/fiction divide in *The Mysteries of Udolpho* is tenuous at best. While the explanations at the end of the novel appear to clear up its greatest mysteries, the facts presented only account for part of the story. The idea that a wax figure is only ever a wax figure, divorced from its origins or its social implications, is a facile response to a complex set of actions and evidence that, when read together and in relation to the history of the wax figure in Italy and England, give Emily St. Aubert's reaction a very different meaning.

Radcliffe does not simply use the wax figure in *Udolpho* as a foil to both the heroine's and the reader's tendency to allow imagination to fill in for missing or incomplete evidence. Instead, she creates an impossible situation for Emily—in which she is under constant threat of bodily harm—to illuminate how observation is necessarily influenced by factors outside of the "facts" themselves. These include the circumstances under which evidence is found and evaluated, as well as the history behind the objects that Emily encounters. While Radcliffe's narrator ties the wax figure to the practice of "memento mori" in the Catholic Church, there is no evidence of waxworks being used for

this type of ritualistic practice in Italy. Further, we cannot ignore the scientific history, and impact, of these objects at the end of the eighteenth century, which come through in travel narratives, letters, and exhibits of the time. Nor, when analyzing Emily's reaction to the object behind the veil, should we discount the mystery surrounding Montoni's acquisition of the Castle of Udolpho, Emily's imprisonment there at the time of the discovery, and the threats against her person and property by Montoni.

Emily's misidentification of the wax figure as the body of Laurentini instigates the terrible misunderstanding that drives her actions throughout her stay at the castle of Udolpho. Up until she looks behind the black veil Emily (although suspicious) operates under one set of assumptions about Montoni, based upon her own observation, physiognomical assessment, and the little "reliable" information she has been able to obtain from servants.[278] Although she becomes suspicious of Montoni's motives and behavior before they even arrive in Italy, Emily—who has been raised and educated by a botanist father who has taught her above all else not to give into her feelings, but to remain rational at the worst of times—cannot be convinced that her guardian is dangerous without some kind of proof.[279] Because of this, it is only after she "sees" what she perceives to be the body of the missing mistress Udolpho, rotting in a niche hidden behind a black veil, that Emily begins to operate under a different set of assumptions about Montoni—namely that he is a murderer who will stop at nothing to get what he

[278] For more on Radcliffe's use of physiognomy in *The Mysteries of Udolpho*, see chapter three of this dissertation.
[279] For more on botany in Udolpho, see chapter one of this dissertation.

wants.[280] And what he wants from Emily and her aunt is precisely what the servants say he wanted from Laurentini: property.[281]

This is the context of the famous "black veil" incident, the central mystery of *The Mysteries of Udolpho*. Because of the circumstances of her imprisonment, and because she is working under a faulty premise as she seeks the evidence she needs to uncover the truth about the fate of Laurentini, Emily is not able to solve the mystery herself: her terror and her inability to look closely cause her to misinterpret key evidence. In this way, Radcliffe's narrative would seem to create and uphold a fact/fiction divide that privileges the idea of "real," in the form of the explained supernatural, while downplaying information obtained through oral or written accounts, as well as visual evidence that is based upon objects that are themselves seen as mere facsimiles—or *worse*, allegorical images. However, the evidence presented in *Udolpho* is not that simple; both real and allegorical, the wax figure defies the easy categorization of pure fiction.

In her groundbreaking work, *Picturing the Book of Nature*, Sachico Kusukawa defines the shift from allegorical to counterfeit images in anatomical treatise printed after Vesalius' (1543) *De Humani Corporis Fabrica*.[282] Kusukawa describes this shift as a key moment in the development of empiricism as the primary mode of knowledge production in the natural sciences. In order to understand Emily's misunderstanding, and the outcry

[280] And Emily is right about Montoni. He is both scheming to take her and her aunt's property, and he has proven himself willing and able to kill in order to protect his assets.
[281] Of course, the aunt's property is legally his by marriage, but Emily's property is not. After trying to enrich himself through failed marriage deals that would have her tied to one of his friends, Montoni eventually seeks to take Emily's family property directly.
[282] Kusukawa, Sachico. *Picturing the Book of Nature: Image, Text, and Argument in Sixteenth-Century Human Anatomy and Medical Botany* (Chicago: University of Chicago Press, 2012).

against “all of this pother” being made about a wax figure, we must interrogate the privileging of empirical knowledge within the novel. When Emily first encounters the wax figure behind the veil, she is searching for a portrait—a decidedly counterfeit image—of the former mistress of the castle in which she herself is being kept against her will.[283] Emily sees this portrait as a vital piece of evidence in her investigation into Montoni’s past, and although she is not sure what she will encounter in the long-abandoned room, she knows that the only way to find out is to pull back the veil and see with her own eyes.

In my first chapter, I describe how Emily has been educated in the empirical sciences by her father, a Rousseauvean botanist avant la lettre, and has used her powers of observation and analysis to conclude that it would be in her best interest to find out more about the mysterious former owner of Udolpho. With this in mind, before she even attempts to find the portrait of Laurentini, Emily gathers all of the information available to her: the oral accounts of the castle’s servants who served under the former Mistress of Udolpho before her mysterious disappearance. Regardless of their first-hand knowledge of the castle and its inhabitants, Emily finds the servant’s accounts suspect because of their “superstitious” undertones, and supernatural elements.[284]

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[283] The idea of “counterfeit” vs “real” can also be seen in Rousseau’s *Letters on the Elements of Botany*, in which Rousseau privileges the living example over the botanical illustration, or even the dried specimen.
[284] The supernatural in Radcliffe is often, but not always explained away. What is notable, is that the superstitions of the servants, while they never bear true supernatural causes, almost always point to nefarious real-life dealings: Annette is correct that Laurentini both disappeared and continued to live a haunted existence, the old housekeeper, Dorothée’s, superstition about the former marchioness’s room is justified both when Annette’s lover, Ludovico, is kidnapped by dangerous banditti, and when it is finally discovered that the marchioness was indeed murdered. This ties back to the role of education in observation: we all see things, how we interpret them depends on our education. Superstition in Radcliffe represents a lack of education, which is distrusted as much as—if not more than—the inclusion of supernatural elements in Laurentini’s story. In fact, supernatural elements, such as Adeline’s ghostly father

Both imagination and superstition can be read as fictions in Radcliffe, but while imagination is celebrated, superstition is derided as both ignorant and dangerous. The servants' accounts cannot be trusted, not because they see things that aren't there, but because they haven't been taught to see properly, as evidenced in their reliance on superstition. This division is certainly class-based. For instance, while Emily's fantastical poem about faeries interacting with the observable landscape around La Vallée, at the beginning of the novel, is tolerated by her botanist father because it uses the imagination to explore and examine the natural world, Emily herself does not see how the servant's similar placement of a ghostly Laurentini might also speak to a greater truth about the social world.

The landscape of *Udolpho* is not just filled with nature and architecture, but richly populated with both seen and unseen social forces—as the faeries in Emily's poem populate the forest around her home. What makes this especially interesting is the fact that while faeries do not actually inhabit the forests around La Vallée, Laurentini certainly does "haunt" the woods around, Chateau-le-Blanc, making it more likely that she may have also wandered the forests around Udolpho in the days preceding her disappearance. Unlike the spectral presences that we see in Romance, and at the end of Udolpho, Laurentini's haunting of these gothic spaces is an embodied act. So while Radcliffe presents Annette's stories about seeing the ghost of Laurentini in the woods as

in *Romance*, as well as Emily's own ghostly parents at the end of *Udolpho*, are tolerated at other times in Radcliffe's narratives.

an example of Italian superstition, in fact we know that she actually inhabited those spaces, albeit to the knowledge of only herself and the servant who accompanied her.[285]

In fact, all of the superstitions of the servants are to some extent vindicated by the end of the novel, with the seeming exception of the wax figure, which is read as the ultimate proof of "monkish" superstition. However, although the wax figure is not of Laurentini herself, Emily's perception of it as the physical remains of the former mistress of Udolpho is tied to Castle's assertion that in Radcliffe, "the other is always present—especially when absent."[286] Laurentini haunts the space of Udolpho as an absence, a mystery that can only be solved through her physical "haunting" of the woods surrounding the monastery. In this way, the wax figure does come to represent the dangers that Emily faces in the castle; similarly, Ludovico discovers that a dangerous and malignant force does haunt the chambers of the murdered marchioness—although it turns out to be banditti, rather than ghosts. And, murder does play a role in the disappearance of Laurentini from Udolpho—although she turns out to be in liege with the murderer, rather than the victim of some nefarious plot by Montoni. Emily's search for knowledge and her Italian servant's understanding of the world are not as at odds as it would seem.

Despite their value to Emily's understanding of her own precarious situation, having been raised to privilege rational observation and empirical evidence, Emily

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[285] Travel accounts throughout the eighteenth century support the British reading of Italy as a land of superstition: "Most of the British writers, from Gibbon to Sharp to Smollett to Northall in the 1760s, communicate a stereotypical image of Italy as a superstitious land, to some extent brutalized and rendered idle by tyranny" (Guerra 5). Guerra, Lia. "Off the Beaten Track—The Marginal in Mainstream Cultural Connections between Great Britain and Italy: An Introduction." In *The Center and the Margins in Eighteenth-Century British and Italian Cultures*. Frank O'Gorman and Lia Guerra, eds. Newcastle Upon Tyne, Cambridge Scholars Publishing (2013): 1-11.

[286] Castle 126.

decides to seek more reliable information about Laurentini through direct observation. She cannot question the missing Laurentini herself, so Emily instead decides to find a portrait of her subject to study, just as a physiognomist might. This is also in line with eighteenth century botany, which encouraged the use of illustrations in the absence of specimen. Having heard that a portrait exists in the castle of its former mistress, Emily convinces Annette to take her to the room said to hold the likeness of Laurentini. The room and the image itself are steeped in mystery, with no reliable evidence of their contents.

When Emily enters the room containing the mysterious veiled object, she is expecting to see a very specific thing: a portrait—a decidedly counterfeit image—of a Signora Laurentini, the former mistress of the castle in which she herself is being kept against her will. Instead, she encounters a very different thing, an allegorical (and decidedly macabre) facsimile of a corpse—later described by the narrator as a "memento mori." She does not recognize this image as allegorical, however, instead reading it within the context of the narrative she has already heard about Laurentini, and the portrait that she is expecting to see. This is the root of the fact/fiction divide in the novel, in which empiricism requires that objects be "read" as self-evident facts, while in reality (and in this narrative) they actually inhabit the more liminal space dominated by interpretation.

The fiction Emily encounters (in the form of the wax figure), is all too real, and it causes her to faint before the reader gets any description of the mysterious object until the end of the novel, when the omniscient narrator tells us:

> There appeared, instead of the picture she had expected… a human figure of ghastly paleness, stretched at its length, and dressed in the habiliments of the grave…. Had she dared to look again, her delusions and her fears would have vanished together, and she would have perceived, that the figure before her was not human, but formed of wax.[287]

In this passage, Radcliffe attributes the failure of empiricism first to the verisimilitude of the object itself, before condemning Emily's failure to examine the object properly. Because of its realistic portrayal of an actual corpse, along with the testimonies of the servants, Emily misreads the wax figure as the actual body of the missing Laurentini, confirming her fears that she is trapped in the house of a murderer. The narrator is quick to add that she would have been disabused of this idea had she looked closely. But, it is precisely the realistic rendering of the object that causes Emily to be confused about its true nature, and to faint before the reader gets any description of what lies behind the veil. Ultimately, neither Emily nor the reader is allowed to "look again," and thus the central mystery of *The Mysteries of Udolpho* is born.

The wax figure is one of the most maligned instances of the "explained supernatural" in Radcliffe's work, inspiring criticism from the publication of the novel to the current day. I believe that part of the resistance to Radcliffe's deployment of this fascinating object comes from the liminal status of waxworks in the British imagination at the time. Presented on a spectrum from vulgar curiosity to spectacular science, at the turn of the nineteenth century the British embraced the wax figure as a fiction, something

[287] Radcliffe 662.

that could represent a person—living or dead—but not something that would be mistaken for the real thing. This stands in stark contrast to the persistence of the strong relationship between the body and the waxwork in Italy, in which, "wax carried an indexical ability that 'strengthened the perceived relationship between the… anatomical ex-voto and the body of the votary.'"[288]

Radcliffe and her readers may have been familiar with wax-works from Grand Tour stops in Italy, or travel accounts, as well as the curiosities displayed at Mrs. Salmon's exhibition of waxworks, and Rackstrow's wax museum in London. In the case of Rackstrow's, many of the anatomical wax figures on display were medical oddities, isolated organs, or effigies, not necessarily the complete hybrid scientific/allegorical figure that Radcliffe describes.[289] Along with these medical wax figures, Rackstrow's had a room filled with posed wax effigies of famous people, made popular and carried on by Mr. and Mrs. Salmon, and Marie Tussaud into the 19th century and beyond.[290]

Suffice it to say, London was no stranger to the wax figure, or juxtaposition of waxworks and human bodies, at the end of the eighteenth century. What is interesting is how Radcliffe seems to place the wax figure in the Italian context into the realm of superstition and religious practices, rather than the decidedly scientific place that it

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[288] Panzanelli 30.

[289] R. Ballestriero has outlined some of the ways that English and Italian waxes were stylistically different, including the hybrid metaphorical/scientific models of the Italian schools that pioneered anatomical waxworks. More important than these stylistic differences (which interestingly reversed in the 19th century, with English waxes becoming more scientific in nature and more realistic as a result) may be the ways in which waxworks were presented as spectacle to tourists in 18th century England, rather than as objects of scientific study. Ballestriero, R. "Anatomical models and wax Venuses: art masterpieces or scientific craft works?" *Journal of Anatomy*. Anatomical Society (Feb. 2010). 216(2): 223-234.

[290] These figures were often dressed in the clothes of the person who they represented, and often the only elements that were made of wax were the head and hands.

actually inhabited during this time. By relying on an attenuated understanding of Italian religious practices, while conflating them with grand-tour science encounters, Radcliffe manages to take what was presented as both an entertaining and useful object in both the British and the Italian context, and turn it into a macabre symbol of religious oppression.[291]

It will be useful here to turn to travel accounts for a better understanding of how those who did not live in London—or near a wax museum like Rackstrow's or the Wax-Works—might encounter the wax figure in print. The type of image that Emily encounters is in line with the descriptions of wax figures found in Italian medical schools, and museums, like those of the university of Bologna and La Specola in Firenze. These objects functioned as science and spectacle, as well as serving a didactic purpose during the eighteenth and nineteenth centuries. Many of these wax figures were based upon engravings in English medical atlases, such as William Hunter's 1774 *Anatomia Uteri Humani Gravidi*.[292] Utilizing both allegory and empirical evidence, eighteenth-century Italian waxworks, such as those found in La Specola, often illustrated pathology and disease for study by medical students and the public: "In Italy, the preponderance of early modern anatomical waxes was devoted to illustrating either disease (such as the great

[291] Although it may be argued that waxwork collections were not considered suitable for all audiences, there is evidence that they were seen as both an innocent and informative distraction for both sexes. See references to "the Wax-work" and Rackstrow's Museum, alongside the British Museum and Oxford, as agreeable diversions in *The Veil of Felicity, or, Sylvan Happiness: Portrayed in a series of letters, moral and entertaining*. London: [s.n] (1791): E12r.

[292] For a fascinating look at specific waxes in La Specola that are based on William Smellie and William Hunter's anatomical atlases, see Massey, Lyle. "On Waxes and Wombs." In *Ephemeral Bodies: Wax Sculpture and the Human Figure*, ed. Roberta Panzanelli. Los Angeles; Getty Research Institute (2008): 83-105

seventeenth-century plague tableaux in Florence by Gaetano Giulio Zumbo) or obstetrics."[293] Zumbo's plague victims may be his most famous work, but it is his anatomical waxes that exemplify the artist's great skill at representing the human body in a realistic state of dissolution.[294] These figures were popular sights for foreign tourists, and were described in the pages of many of the travel accounts of Italy published in English, both by English travelers and in translation. Still displayed in their original cases to this day, photographs cannot do justice to how realistic and lifelike some of these figures are.[295]

Although the castle of Udolpho is located in the mountains east of Venice, it is actually in travel accounts of Sicily that we find the most telling eighteenth-century descriptions of bodies and waxworks in relation to each other. This may be due to the popularity of the Capuchin order of Palermo's tradition of drying the bodies of the dead in order to preserve them.[296] The monks of Palermo initiated this practice in 1668, and by the eighteenth century the tomb below their monastery had become a tourist attraction (as it remains today). In the "Burial" section of Mary Robinson's translation of Dr. Joseph Hager's *Picture of Palermo* (1800), the description of the Capuchin monks' process of

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[293] *Ephemeral Bodies* 89.

[294] G.G. Zumbo, "Specimen of a head." From: *Encyclopaedia Anatomica: Museo La Specola Florence*. London: Taschen (1999): 18.

[295] I have been to La Specola twice now, as well as observing dead bodies: unembalmed, embalmed, and plasticized (in the Body Worlds exhibits at the California Science Center). While some of the wax figures, notably the "wax venus" that has attracted scholarly attention and necessary feminist critique, may seem obviously fake in bright light and photographs, in the low light in which they were (and still are, at times) displayed, these objects appear much more "real." Not that they could be anything but real, but that they resemble more fully the dead human body on which they were patterned.

[296] This may be what Radcliffe is referring to when she has Paulo note in *The Italian*, "I must say, if we find as good doings here as we had at the Capuchin's, we shall have no reason to regret our beds *al-fresco* among the chestnut branches" (114).

preserving the human body is juxtaposed with descriptions of Florentine waxworks in a way that alludes to the connection between the two objects (the human corpse and the wax figure) in the mind of the curious the traveler. He describes the monks' process of displaying bodies: "they then clothe it [the corpse], and place it in a niche, on which is affixed the name of the person so preserved, and the date of the period when he died." What is fascinating about this account is that Hager then goes on to say (without no transition between the sentences) "I once saw at Florence, that singular representation of the dissolution of the human frame, which is there preserved in wax-work…. It is impossible for anything of the kind to be more perfect. The correctness of the execution, the selection of colors, and the perfect proportion of all the parts render the model, as well as its companion, which represents the plague, *chef d'oeuvres*."[297]

The juxtaposition of macabre and exotic funerary practices and the anatomical waxworks contained in a Florentine science museum indicates how closely both practices were tied to knowledge production in the mind of the author. In some ways, the waxwork is presented as even more "real" in this account than the carefully preserved bodies of the Capuchins, because of its uncorrupted likeness—whereas the mummified bodies look almost unreal, with their leathery skin and withered bodies. The close connection (once again, note that there is really no transition between subjects in Robinson's translation) between the preservation of real corpses, displayed in niches, and the "preservation in

[297] Hager 126-127. These were most certainly the figures of Gaetano Giulio Zumbo, the 17th century Sicilian wax modeler who worked with French anatomist Giullaume Desnoues, a French anatomist. Zumbo brought his famous wax head (fig. 1) to Paris for an anatomy demonstration in 1701 to great applause, and his work is still on display in La Specola today.

wax-work" of the "dissolution of the human frame," indicates the way in which bodies and their representations function interchangeably in this description of Italian culture.[298]

In particular, this passage underlines the idea that rather than being something ridiculous, wax figures acted to preserve the inherently unstable form of the dead human body for research and display during a time when public dissections could only really be held from October to May in parts of Europe, because heat exacerbates the processes of human decay.[299] While preserved corpses had religious and cultural value, the science of waxworks surpassed that of preservation when it came to verisimilitude to biological structures.

Many of Hager's observations expand upon James Philip D'Orville's earlier *Voyage to Sicily* (1764),[300] in which the language describing the Capuchin monastery is very similar, giving the reader a sense of an established rhetorical model for discussing Italian cultural practices in northern European travel narratives. Superstition pervades D'Orville's narrative, and even the veracity of the preserved bodies of the Capuchins is undermined, at times, by the assertion that the monks claim magical/divine processes in their work. For instance, after describing the "miraculous cures" for which the Fathers are

[298] Also worth noting is the seamless transition between Hager's description of Sicilian burial practices and Florentine scientific production and dissemination. Although it emerged from the private collection of the eighteenth-century Grand Duke Leopold of Lorraine, La Specola was opened to the public in 1775, and was a popular destination for Florentines and tourists alike (See Innocenti, "Exoticism on Display at La Specola Museum"). The Capuchin Monks began preserving bodies from the 16th century, and only ceased the practice at the end of the 18th century.

[299] For a fascinating account of how the human body decays under normal conditions (that is, without intervention), see: Roach, Mary. "Life After Death" in *Stiff: The Curious Life of Human Cadavers*. New York: W. W. Norton & Co. (2003).

[300] D'Orville, James Philip. *Voyage to Sicily: With a Description and Delineation of the Several Antique Monuments Remaining in that Island*. Amsterdam: Peter Burman (1764). Imported by Becket and De Hondt.

known, D'Orville turns to the preserved bodies in the Capuchin crypt: "Many of these preserved spectres are also themselves, esteemed great prodigies; no pains being spared to persuade the populace, that their very conservation is miraculous. It is, however, well known, that the nature of the soil operates, in many places, to the production of this pretended miracle…."[301] This passage falls short of a scientific explanation for how the soil in some places might act to mummify bodies after death, but it does gesture toward a culture of opposing supernatural explanations with natural chemical causes. Further, D'Orville's assertion that it is "the soil" that creates these "spectres" undermines the very complex set of processes actually used by the monks, which were developed and implemented through experimentation on the human body. Ultimately, it is the superstition of the traveler that casts a veil over the scientific process and methods at work here.

Much like the "preserved spectres" of the Capuchin monks, the wax figure of Udolpho is also connected to the supernatural, through the rumors and sightings of the native Italians.[302] In a move that is rhetorically similar to these travel accounts of Sicily, the stories of the servants in *Udolpho* that help to build the narrative of the image behind the curtain as belonging to the missing Laurentini are treated as nothing but superstition by Radcliffe's rational heroine. It is these stories that first inspire Emily to seek out more information about the former mistress of Udolpho, and they certainly frame her interpretation of the realistic waxen image of a decaying human body that she finds.

[301] (see the Monthly Review, V. 30, P. 553).
[302] In this case the "spectre" is connected to the missing Mistress of the castle.

The wax figure itself is, famously, not described until the end of the novel. As a reader, all we get is a description of Emily lifting the black veil before she faints. The build-up to this moment is full of anticipation, so the abrupt transition involves the reader directly in a mystery which seems to be kept from only them. As we have seen, in the end we are given a full description of the horrible figure: "a human figure of ghastly paleness, stretched at its length, and dressed in the habiliments of the grave.…the face appeared partly decayed and disfigured by worms, which were visible on the features of the hands."[303] This description of the wax figure is worth repeating, because it shows the realistic rendering of these objects, but also because it is not significantly different from the graphic image we are given of the dead soldier that Emily mistakes for her aunt, not long after her fact-finding mission to the west chamber. The soldier's, "features, deformed by death, were ghastly and horrible, and more than one livid wound appeared on the face."[304] Both figures are described as "ghastly," and "disfigured," or "deformed," by processes of death and decay. Both are "stretched" out in concealed recesses, and both are veiled.

The horror of seeing a dead body is not enough to adequately explain Emily's reaction when she lifts the veil: as we have seen, it is certainly not the only time that Emily encounters a dead body in the narrative. The deaths of her siblings, mother, and father, along with the more gruesome images of dead soldiers at Udolpho, all form an important part of Emily's experience of the world. But, for some reason, the wax figure

[303] Radcliffe 662.
[304] Radcliffe 348.

provokes the strongest response in Radcliffe's heroine. The context in which she encounters this waxen image must play a role in Emily's reaction, just as the context for the bodies in the capuchin monastery plays a role in the traveler's described reactions. The vault-like nature of the abandoned room in which the wax figure is located in Udolpho, the lack of light, the superstitious stories that surround the image behind the veil, the expectation of a painting… all collude to produce the Gothic effects of suspense and terror that work on both Radcliffe's heroine and readers. When read in relation to contemporary narrative accounts of Italian burial practices, and in light of the described perfection of Italian waxworks, it appears more than reasonable for Emily to believe that she has seen a real body. However, it is not merely the sight of a perceived corpse but the context within which she encounters it—in Italy, in a vault-like room, in dim light, in a niche in the wall—after hearing the legend of the murdered mistress of Udolpho, that makes this discovery so unsettling that Emily loses her senses.

The importance of stories and legends to the perception of the Italian wax figure in the English imagination is tied to the spectacle of both waxworks and other displayed "bodies" encountered by travelers. Certainly, accounts of the "black legend" of Sansevero, which literally brings together the body and the wax figure, while seeking to efface the connection between them through the creation of a medical experimentation narrative that was meant to tantalize, horrify, and, ultimately advertise the anatomist/scientist as much as the objects themselves, illustrates the interconnectivity of narrative and object. In these stories, Raimondo di Sangro, Prince of San Severo, "'had two of his servants killed' to 'strangely embalm their bodies,'" which he then placed in

niches in Palazzo Sansevero for friends and tourists alike to see.[305] According to Lucia Dacome, "Salerno's anatomical specimens became one of the highlights of the San Severo Palace. When a French translation of the *Breve nota* appeared in 1768 in *Le Journal encyclopédique*, a footnote highlighted that 'the English tourists, who have traveled most, consider these two anatomical pieces to be masterpieces.'"[306] The English interest in anatomical spectacles was well satisfied by Italian collections, such as those at the Palazzo Sansevero.

During the eighteenth century, and beyond, the legends surrounding the anatomical machines of Sansevero defined the way that they were perceived by a public ready to believe in the fantastic, but also in the scientific.[307] In reality, the anatomical figures were the scientific feat of Dr. Giuseppe Salerno, of Palermo, an accomplished wax sculptor and anatomist. However, the rumors surrounding them, as well as their patron, were enough to make the local Neopolitans who lived near the palazzo as nervous as the servants in an Ann Radcliffe novel: "Thus, Benedetto Croce recalls how, 'for the poor people from the streets near the di Sangro Chapel', the Prince of Sansevero was 'the Neapolitan incarnation of Dr Faustus […] who made a pact with the devil, and almost

[305] These objects remain in relatively good condition, even today. When I visited Museo Sansevero in September of 2016, the anatomical machines remained one of its key draws as a tourist destination.
[306] Dacome, Lucia. Malleable Anatomies: Models, Makers, and Material Culture in Eighteenth-Century Italy. Oxford: Oxford University Press (2017): 234.
[307] Clorinda Donato has published a fascinating account of the prince of San Severo's connections to European knowledge circles through Freemasonry. Less is known about Dr. Salerno, who actually carried out the work on the anatomical machines, but we do know that he traveled from Sicily to work on them. See, Donato, Clorinda. "Between Myth and Archive, Alchemy and Science in Eighteenth-Century Naples: The Cabinet of Raimondo di Sangro, Prince of San Severo." In, *Life Forms in the Thinking of the Long Eighteenth Century*, Keith Michael Baker and Jenna M. Gibbs, eds. Toronto: University of Toronto Press (2016).

became a devil himself, to master the most secret mysteries of nature.'"[308] In a movement reminiscent of Radcliffe's "explained supernatural," it has recently been revealed that the anatomical machines of Sansevero are actually waxwork creations: the skeletons are human, but the elaborately preserved arterial systems seem to have been constructed of wax and wire—a fact that, even with all of our scientific knowledge, was only discovered a few years ago.

It makes sense that Italian wax-works would be convincingly realistic: the anatomical wax figure had been a part of the Italian artistic and scientific landscape for over a century by the time European and English Grand Tourists described them. According to Ballestriero, Messbarger, Bloom, and others, the origins of anatomical wax-works in the Italian context arose from the desire for bodies that were "truer," or at least less corruptible than flesh, to teach anatomy and surgery to an increasingly interested population.[309] One of the advantages of wax was the ability to produce a figure that was essentially "counterfeit," in the sense described by Kusukawa; that is, based upon, and closely imitating, actual human bodies.

Although Italian (and English) wax modeling were certainly advanced, another thing that made wax figures so similar, in the public imagination, to the bodies upon which they were based, was the practice of sometimes injecting wax into corpses, or

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[308] *Breve nota di quel che si vede in casa del Principe de Sansevero D. Raimondo di Sangro nella città di Napoli*. [Naples]: n.p. (1766). British Library.

[309] See: Ballestriero, R. "Anatomical models and wax Venuses: art masterpieces or scientific craft works?" *Journal of Anatomy*. Anatomical Society (Feb. 2010). 216(2): 223-234. Messbarger, Rebecca. *The Lady Anatomist: The Life and Work of Anna Morandi Manzolini*. Chicago: University of Chicago Press (2010). Bloom, Michelle E. *Wax Works: A Cultural Obsession.* Minneapolis: University of Minnesota Press (2003).

isolated body parts, to preserve the more delicate parts of the human anatomy. Even the famous English anatomist Henry Hunter, who viewed wax figures as, "no substitute for the knowledge obtained through dissection alone," used colored wax in his anatomical preparations. The use of wax, he says, "enables us to trace the large vessels with great ease, renders the smaller much more conspicuous, and makes thousands of the very minute ones visible, which from their delicacy, and the transparency of their natural contents, are otherwise imperceptible."[310]

The idea of wax making the "otherwise imperceptible" apparent is an interesting corollary to the way that the wax figure functions in *Udolpho*. Like Hunter, Radcliffe's heroine learns that wax cannot communicate the same information as a body (in this case, the death of Laurentini di Udolpho that is the catalyst for the explained supernatural); however, it does carry a didactic function. What is interesting is that if the figure behind the veil had been just another body (we see at least three others in the novel) would we still be talking about it? Waxworks hold our fascination for a reason: at their best they are creepy, uncanny, and informative.

In a way, Radcliffe herself "injects" the waxwork into her narrative to illuminate what we can read as a part of an existing conversation. The use of wax in anatomical preparations was not a secret "tool of the trade," but was rather a common enough practice that it is included in the published descriptions of items on display at Rackstrow's Museum. In these descriptions, wax is seen as a scientific tool, allowing the viewer to perceive biological systems that would otherwise be obscured or inaccessible to

[310] Hunter, William. *Two Introductory Lectures*. London: J. Johnson (1784): 56 (note 29).

the untrained eye. For instance, entry 15 in the Rackstrow's catalog, listed amongst casts and molds of cadavers, reads: "The real Brains of a Man, with the Blood-vessels injected, taken whole out of the Skull, and preserved in spirits."[311] The practice of injecting wax can be seen here to be both common enough to be understood, and notable enough to be mentioned in an otherwise sparring catalog descriptions. Were the blood vessels not injected with wax, it is unlikely that the untrained viewer would be able to pick them out at all. This is partly because the outer layer of the brain decays at a rapid rate after death, causing a dissolution of delicate structures and as the outer layer turns to "mush."

These augmented biological/ wax specimens addressed both pedagogical and preservation concerns, but they also inhabited a liminal space. The widely-used technique of injecting wax into the preserved parts of bodies on display made the bodies themselves at times a hybrid of fiction and reality that prefigured the plasticized human bodies we encounter in traveling museum exhibits today, and both narrowed and reinforced the distinctions between bodies and their representations. Displayed alongside anatomical wax figures, as figures of scientific inquiry and interest, they are both real, and representation.

The eighteenth century wax figure, then, is always already both fiction and reality. It functions as a body, much as in Radcliffe's narrative, and its origins are in death. Even in its counterfeit form it is itself both a fantastical creation and a real physical object that has uses and values that outlast its model. In this way, it represents what

[311] As taken from the 4th edition of *A Descriptive Catalogue of Rackstrow's Museum*. [London], [s.n]. (1794): B3v. Countway Library of Medicine.

Jerrold Hogle describes as a transition in the understanding of counterfeit objects in the eighteenth century: "as the counterfeit becomes its ghost in Western thinking, it is already moving, in the Gothic and elsewhere, toward the early industrial view of the signifier as a simulacrum, a symbol repetitiously manufactured from a pattern or mold (which is itself a ghost of the counterfeit)."[312] The "ghost" of the counterfeit here refers to the Renaissance understanding of the term as "haunting" the Gothic use, as described above.

As a teaching tool, the counterfeit wax figure allows for a more stable rendering of the human body it is based upon. As a spectacle, it carries the macabre association of its origins in dissection and anatomy, associations that Radcliffe alludes to when she calls it a "memento mori," a broad term, often used to describe the animated skeletons, and écorchés (drawn or rendered images of the body without skin) of both humans and animals, seen in images of anatomy theatres and other scenes of anatomy from at least Vesalius forward.[313]

Rebecca Messbarger describes the relationship between the memento mori and the anatomical wax figure in her study of Anna Morandi, whose wax figures, were based on an intimate knowledge of the prevailing medical model of dissection, and whose work also included human remnants at times. In particular Morandi's wax self portrait, which

[312] Hogle, J. E. (2012) The Gothic Ghost of the Counterfeit and the Progress of Abjection, in *A New Companion to the Gothic* (ed D. Punter), John Wiley & Sons, Ltd, Chichester, UK. doi: 10.1002/9781444354959.ch34: 502-503.

[313] The connection between dissection, wax modeling and print anatomies is described by Lyle Massey in "On Waxes and Wombs," in *Ephemeral Bodies*, in which the author discusses how anatomy texts informed both the process of dissection and the subsequent aesthetics of anatomical wax figures. In this process, "anatomists were instructed to dissect bodies to make them look like well-known engravings in published works on anatomy," and thus, "wax models and casts were made to conform to standard images available in anatomical atlases of the period" (96).

incorporates a human skull, "closely follows the Vesalian iconographic model," while "figure[ing] [death] realistically by the skull, to which the matted human hair of the implied organ donor still clings."[314] The portrait itself is a fascinating piece: Morandi's torso sits atop a wood plank, dressed in an ornate pink dress, with pearls and rings adorning her wax neck and wrists. Her eyes gaze forward, not down at the object in front of her, echoing the role of lecturer in the anatomical theater. Her hands, however, are poised holding the instruments of dissection above a human head, swathed in fabric, its scalp peeled back to expose the brain—a clear connection to the Vesalian mode of "hands on" dissection as a model of knowledge production.

As Messbarger notes, in this wax portrait, "the practical objects and instruments of scientific knowledge—scalpel and forceps—have replaced such standard metaphysical signs as the skeleton and the cherub, indicating an epistemological as well as an iconographic shift."[315] Messbarger refers here to the title-page images and illustrations of anatomical texts by Vesalius, Hook, Cheselden, and others from the 16th through the 18th century, which often showed the act of dissection performed in a space adorned with skeletons and putti. Morandi's sculpted portrait eschews the traditional allegorical "memento mori" for what could be argued to be a more scientific view of death: the human body being used as a source of empirical knowledge. This is not to say that Morandi's wax portrait does not also function as spectacle, or allegory; but as both science and spectacle, it illustrates the shift from allegorical to counterfeit imagery in

[314] Messbarger 104-107. See Figure 1.
[315] Messbarger 107.

Italian anatomical sciences, and hence, a foregrounding of the empiricism that Radcliffe holds up as the key to true understanding.

Ann Radcliffe illustrates the complexity of conversations surrounding empirical observation by making the wax figure the centerpiece to her "explained supernatural" in *The Mysteries of Udolpho*. After piecing together clues along the way, the heroine—and the reader by extension—is not actually allowed to figure out the mysteries of the narrative for herself, creating a disconnect between the observations that she has already made, and the explanations of the privileged "omniscient narrator." Much like the travel narratives we have looked at, with their combination of description (which allows the reader to "see" for themselves) and explanation (that tells the reader what is "real" or important), the balance between objects as evidence per se in *Udolpho*, and the constructed reality of the narrator's explanations, is itself a careful dialectic about the body and its representations as sites of knowledge.

It is important that this knowledge is carefully controlled, in the end, by the narrator. Throughout the novel, Emily seeks knowledge in the observable evidence around her, but the evidence itself does not tell the whole story. Much like the waxworks of Italy and England, and the bodies of the Capuchins, context is as important as the object itself for understanding the meaning, origins, and use of bodies and their representations. Outside of the museum, the anatomy class, or the crypt, these already uncanny objects are easy to misread. The episode of the figure behind the veil indicates a certain credulity, on the part of the author, to believe a wax figure capable of inspiring horror. At the same time, the way in which the "truth" is presented undermines this initial

impression. The reader is never given a description of the figure behind the veil from the heroine's perspective; when Emily returns to the room to gather more evidence, the door is locked. Because of this, not only is Emily not allowed to "look again," but she is denied the power to describe her experience; she is denied what is represented in Morandi's controlled gaze and methodological system of inquiry.

The reading of Emily as a silly girl who can't tell the difference between a wax figure and a corpse (beyond the implication that she doesn't know how to observe properly) is also an indictment of the perceived superstitious/allegorical function of Italian wax-works—particularly those described in English travel accounts. Perhaps Emily doesn't follow the Rousseauvean edict to "look again," when observing a new object of study, but even if she had she would have seen an object that itself could give her no answers about the mystery she was trying to solve. The legacy of the explained supernatural in the context of *Udolpho* is that it tells the reader that the object behind the veil holds no value as evidence for anything other than Italian superstition.[316] In this way, the role of waxworks in anatomical sciences is undermined in Radcliffe's work, by the assertion that such a complex object could function solely as memento mori, without playing any other role in its beholder's (or its creator's) understanding. What is really at

[316] To this day, Italian waxworks are often wrongly attributed to superstition by foreign tourists. In a 2003 Italy travel guide for families, after describing some of Zumbo's waxworks in La Specola, the authors opine: "There's even a wax of a rat pulling a plague-victim's intestine. Gaetano must have been to one too many exorcisms." I don't know what a rat eating a corpse has to do with an exorcism, but I do know that there is nothing supernatural about this scene. Pape, Barbara, and Michael Calabrese. *Italy with Kids*. New York: Simon and Schuster (2003): 145.

stake in this narrow presentation of the wax figure is the disconnect between empiricism—the "scientific" model—and what constitutes evidence.[317]

The exactness of the anatomical wax figures in Hager's account, the anatomical wax figures in La Specola, and the Anatomical Machines of Sansevero, simply cannot overcome their liminal position as both fact and fiction, counterfeit and allegorical representation in the eighteenth-century English imagination. And, by extension, Italian anatomical sciences are "othered" in the English gothic imaginary, when Radcliffe ignores the important relationship between English anatomy (and specifically the anatomical wax figure in England) and the Italian anatomists and artisans who made possible the spread of anatomical knowledge to a wider audience through their craft. As we have seen, the English themselves were no strangers to waxworks. However, it seems that the anatomical wax figure in England took on a different social role than its forebears in Italy. Ballestriero asserts that anatomical wax figures were not as often used in anatomy lessons in Britain primarily due to cooler weather and a more reliable supply of cadavers. And, although Matthew Craske convincingly argues that Rackstrows Museum actually organized its collection in a scientifically meaningful way that seems closer to the model attributed to La Specola and the University of Bologna, it was still more closely associated with spectacle than science. This does not mean that waxworks were not a part of the scientific conversation at all in England, but that they inhabited the fringes, rather than playing a central role as in Italy.

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[317][317] For instance, when Terry Castle asserts: "Uneasy fascination gives way before the comforting final illusion that there is no such thing as a real corpse," she undermines the history of wax figures as products of real corpses; without a real corpse (or rather, many real corpses) there could be no such representations (130).

Part of this understanding of English waxworks depends on the spaces in which they were displayed; Both travelling exhibits, and institutions such as Rackstrows (on the Strand), were not connected to established medical schools or spaces of scientific inquiry, but rather served as stand-alone collections that were advertised to a broad public audience. While Rackstrows presented waxworks alongside preserved body parts—both human and animal—for curiosity seekers to view, it also contained a large collection of the types of effigies contained in popular waxworks typified by Mrs. Salmon's: such as "lifelike" models of royalty, dressed in garb. These types of wax figures, along with the context of their display, shifted the conversations around the objects themselves, foregrounding spectacle over knowledge.[318]

Perhaps appropriately, the wax effigies of Mrs. Salmon's waxworks were viewed as more of a curiosity than a spectacle. In fact, Lady Mary Wortley Montague uses the wax effigies in Salmon's exhibition as a trope, when she describes the women of Hanover in her *Turkish Embassy Letters*: "They resemble one another as much as Mrs. Salmon's court of Great Britain, and are in as much danger of melting away…" (79).[319] Lady Mary's indictment of the weakness and susceptibility of their structure, along with the lack of verisimilitude of the waxworks themselves—implied in the idea that they all

[318] I have not been able to find any extant wax figures from Rackstrow's or Mrs. Salmon's Waxworks, but wax effigies of many English royals can still be seen in Westminster Abbey to this day. In addition, wax effigies must have been sufficiently popular to inspire at least one eighteenth-century lady to request her own. According to the blog, "Jane Austen's World," Sarah Hare made a will one year before her death, specifying: "I desire to have my face and hands made in wax with a piece of crimson satin thrown like a garment in a picture hair upon my head and put in a case of mahogany with a glass before and fix'd up so near the place where my corps lyes as it can be…" https://janeaustensworld.wordpress.com/2011/09/12/the-strange-wax-effigy-of-sarah-hare-18th-century-spinster/

[319] Montague, Lady Mary Wortley. *The Turkish Embassy Letters*. Peterborough, Ont.: Broadview Press (2013).

look alike—gives a good indication of how many wax figures were viewed in the English imaginary. These wax effigies were stylistically different from the anatomical wax figure in England and Italy, more akin to portraits in style, with an emphasis on the sitter's social attributes and status, rather than verisimilitude to the person.[320] Their popularity, and display in relation to both bodies and anatomical waxes, had an effect on the waxwork in the British public imagination. Shifting the focus of wax displays to the effigies we still see today, thanks to Madam Tussaud, Mrs. Salmon and others also helped create a perception of waxworks that makes Emily St. Aubert's reaction seem silly in *Udolpho*.

Unlike descriptions of British waxworks on public display, accounts of travelers in Italy paint a different picture of the potential of the wax figure to both resemble a real corpse, and to inspire horror. It makes sense that Italian wax-works were convincingly realistic: the accurately rendered anatomical wax figure had been a part of the Italian artistic and scientific landscape for over a century by the time European and English tourists described them. According to Ballestriero, the origins of anatomical wax-works in the Italian context arose from the desire for bodies that were "truer," or at least less corruptible than flesh, to teach anatomy and surgery to an increasingly interested population. One of the advantages of wax was the ability to produce a figure that was essentially "counterfeit," based upon, and closely mimicking the real thing.

[320] There are exceptions to this, and they are notable. For instance, the funerary effigy of Sarah Hare, who died in 1744, is notable for showing her with "loopy eyes," "warts and all," according to visitor reports. See, Vic. "The Strange Wax Effigy of Sarah Hare, 18th Century Spinster" on the blog *Jane Austen's World* (September, 12th 2011). https://janeaustensworld.wordpress.com/2011/09/12/the-strange-wax-effigy-of-sarah-hare-18th-century-spinster/

In an earlier chapter, I tie Radcliffe's critique of observation to Rousseauvean botany and the delicate balance of empirical evidence and sentimental engagement with the subject, from which reason gets its meaning. For now, it is important to note how the very questions of bodies and their representations that Radcliffe explored is still contested and debated in popular culture. Today, waxworks are largely relegated to spaces that—although sometimes termed "museums"—are viewed as more entertaining than instructional. The waxworks that inhabit these spaces are, further, more akin to the effigy tradition that comes out of the Italian Renaissance than the anatomical waxes of the eighteenth century. This tradition of the wax figure "che par vivo" (that seems alive), centered on the natural, living appearance of a subject, that was intended to represent a living or deceased person of merit. Verisimilitude, rather than affect underlies the basis for judging these objects from the Renaissance forward: "In his description of polychrome wax sculpture, Vasari… uses conventions long associated with the imitation of nature rather than expressing a personal response to the extreme physiognomic realism: '[Wax] figures really only lack, in a certain sense, the breath of life and words."[321] In 16th century Florence, these waxworks were often displayed in churches to express civic status and power, but they do not seem to have held the status of "memento mori" ascribed to them by Ann Radcliffe.[322]

Conversely, in the "Body Works" exhibits, and others, we can see the very combination of science and spectacle, of "real" and "counterfeit," of fact and fiction,

[321] Panzanelli, Roberta. "Wax Effigies in Renaissance Florence." In Ephemeral Bodies: Wax Sculpture and the Human Figure. Ed. Roberta Panzanelli. Los Angeles: Getty Research Institute (2008): 30.
[322] See Panzanelli, pp. 14-18.

colluding to present objects that began as corpses, but became something else in the process of plasticization. In some sense this new process flips the eighteenth-century script, by taking human bodies and making them less "real" than real, in that they often hardly resemble the person from whom they came. When I first encountered these "bodies," they were being displayed in the California Science Center, in a special exhibit, around the time of Halloween. Simultaneously authorized as scientific by the place of their display, and promoted as spectacle by the timing, advertising, and special pricing of the event, these objects were curiously divorced from their origins.[323]

Of course, if my fellow visitors to Body Worlds had understood the origins of the bodies on display—outside of the official, sanctioned narrative provided—they would have had an interesting window into the eighteenth-century patron of Rackstrows. Today, the macabre origins of bodies on display are hidden; however, in the age of Radcliffe, the origins of bodies and their representations were a part of life: public executions, dissections, and artistic representations of anatomy were a part of the broader cultural landscape of the time. In fact, the 1794 Catalog for Rackstrow's museum lists among its curiosities: "A most ingenious Figure moulded to the body of Mary Musson, who was executed at Tyburn, for the Murder of her Bastard Child, and dissected at Surgeon's Hall, by removing the Skin and Fat from the Lean Flesh, which consists of many distinct Masses, called Muscles, whose Fibres, in Life (by alternatively contracting with force, and relaxing) are the Instruments of all our Motions…. The whole is coloured exactly to

[323] In fact, the origins of many of these bodies may very well be equally macabre as the objects of most eighteenth-century dissections and anatomical wax figures: there is evidence that the current traveling exhibits of plasticized bodies contain executed "criminals."

nature, and is allowed to be a matchless figure."[324] This entry illustrates the position of the wax figure as both science and spectacle in England at the end of the eighteenth century: from the story of murder, to the public execution and anatomy, to the detailed explanation of the dissection of the muscles and ligaments. The ultimate insistence that this figure is both "exact" and "matchless," even as the object itself sits beside "real" human body parts on exhibit, speaks to the position that waxworks inhabited in the public consciousness. Much as the wax figures in La Specola are described as more real than real in relation to the preserved bodies of the Sicilian Capuchin Monks, the waxes of Rackstrow's are presented as instructive of a greater truth than a body alone can provide.

By holding up the wax figure in Udolpho as pure fiction, even while acknowledging the truth of the danger it implies, Radcliffe's text becomes a complex critique of what constitutes real evidence. The narrator's implication is not, as Dunlop and others would have it: 'the body is not real; therefore, the danger is not real.' Rather, what Radcliffe tells us is that the evidence is not what it seems, and Emily would have known this if she had examined it more closely. However, knowing that the figure behind the veil was not real would not have helped Emily understand the danger she was actually facing.

This is an important distinction that we see time and time again in *Udolpho*: most pointedly when Emily encounters the dead soldier while searching for her aunt. Assuming the worst about the fate of her aunt, Emily misinterprets some blood that she finds on the tower stairs. Emily follows the blood, and enters a room expecting to find her

[324] B3r-B3v.

dead or injured aunt. Here, she encounters another veil, behind which is an actual body, badly maimed. This time she examines the object behind the veil closely before losing consciousness. Eve Kosofsky Sedgwick refers to this scene as a doubling of the veiled "picture" narrative, in that Emily once again misreads clues and comes to the wrong conclusion about the evidence she encounters.[325] In the end though, Emily is not wrong about the danger to herself and her aunt. Sedgwick concedes this point as well: "the aunt herself, locked in another room behind other curtains, has also grown 'pale,' 'emaciated,' with a 'skeleton hand' and a face 'so changed by illness, that the resemblance of what it had been, could scarcely be traced in what it now appeared.'"[326] Almost unrecognizable, Emily's aunt embodies Emily's greatest fears about both the wax figure and the dead soldier: Montoni's very real ability to bring harm to his charges.

The wax figure invokes another understanding of "doubling" in these scenes: the doubling implied by the object itself. Radcliffe's narrator seems to embrace a fictionalized medieval understanding of the anatomical wax figure as memento mori, or a reminder of death itself. Panzanelli argues that during the medieval period, waxworks were always based upon a person, living or dead. "Wax," she argues, "thus epitomizes a type of verisimilitude that does not merely portray or illustrate the image of the living but reproduces it, 'doubles' it, performing the donor according to conventions in the artistic vocabulary that are a precondition of shared social and visual practices."[327] By creating an alternative provenance for the waxwork in the castle of Udolpho, the narrator

[325] Sedgwick, Eve Kosofsky. The Coherence of Gothic Conventions. New York: Methuen (1986): 147-148.
[326] Sedgwick 148.
[327] 31

decontextualizes the anatomical wax figure as a representative of its votary, bringing it into the eighteenth century practice of basing wax figures on general anatomical knowledge—obtained through the dissection of bodies, but not necessarily reflecting one particular body. This is what is, perhaps, most unsatisfying about Radcliffe's explanation. The description of the figure bespeaks the scientific exactness seen in the medical and allegorical anatomical models in Bologna and Florence, as well as some of the objects in Rackstrow's; however, unlike these objects, this elaborate waxwork is read as an object of superstition and a foil to true knowledge.

Neither the wax figure nor the dead soldier turn out to be what Emily thinks they are, but neither are they "passages that lead to nothing."[328] As we have seen, the wax figure held a cultural and scientific significance in both Italy and England, both as an object that communicated knowledge about the human body and as a historical tool for communicating the horrors of disease. Rooted in the practice of dissection, these objects have been described as more realistic than preserved human bodies, and would certainly be terrifying to encounter outside of the context of a museum or exhibit.[329]

In Radcliffe, faulty observation does not mean that the conclusions it supports are fiction. Quite the contrary, in fact. While the narrator may seem to have the last word with the "explained supernatural," Emily St. Aubert might not have survived her imprisonment at the Castle of Udolpho if she hadn't followed fictions to understand the

[328] Dunlop 475.
[329] The dead soldier could also benefit from historical context as well, but this is outside the scope of this chapter. For our purposes, it is enough to know that Emily is being held prisoner in a place where a maimed corpse is being stored behind a curtain in a tower—the same tower in which her dying aunt has been locked away.

actual danger she was in. Radcliffe recognizes this. After explaining Emily's error in "let[ting] the veil drop," the narrator expresses that it is perfectly reasonable that an image so "horribly natural" should be taken for "the object it resembled." Further, the narrator adds that despite her reservations about jumping to conclusions, "these were not sufficient to overcome her suspicion of Montoni; and it was the dread of his terrible vengeance, that had sealed her lips in silence, concerning what she had seen in the west chamber" (663).

Ultimately, it is Emily's rational fears of Montoni, along with the locked doors, that keep her from lifting the veil a second time and reexamining the evidence in the west chamber—not a lack of interest or understanding of empirical methods. That this is a part of the "explained supernatural" is important for understanding Radcliffe's message. If Emily had just been a silly girl who had raised "all this pother over an image in wax," Radcliffe would not go so far to justify why her actions were both understandable and warranted. So, even though she takes the moment of discovery away from her heroine, she uses the explained supernatural to expose why Emily, despite her inclination to discover for herself and to question the evidence she has seen, was not in a position to rely on reason alone. Emily's tenuous subject position is the key to understanding her actions in this moment and throughout the novel: she is being held prisoner at the time of her discovery of the wax figure, and even before this, social conventions would not allow her to refuse the will of her guardians—despite her suspicions about Montoni.[330]

[330] I discuss Emily's misgivings about her guardians, and her inability to run away with Valencourt to save herself from Montoni, in the third chapter of this dissertation on physiognomy and the Radcliffean character.

The wax figure in Udolpho represents the tenuous relationship between science and spectacle that has perhaps always existed, but which was especially pronounced at the end of the eighteenth century. Waxworks further inhabited a liminal position on the fact/fiction divide, being both counterfeit objects—based upon dissection—and objects unto themselves. Nowhere is this more obvious than in travel accounts of Italian burial practices and waxworks, in which the juxtaposition of bodies and their "more real than real" representations provide a cultural framework for understanding how these objects could be viewed as both knowledge producing and entertaining.

I believe that part of the resistance to Radcliffe's deployment of the wax figure comes from the liminal status of these objects in the British imagination at the time. Perceived as both foreign (many of the celebrated wax workers of the time were either French or Italian) and fiction, the British embraced the wax figure as spectacle, but they did not employ it publicly in the same scientific ways that the Italians did during the eighteenth century. Another thing that Radcliffe does with the explained supernatural in this instance is to efface the scientific history of the wax figure in Italy, tying it to the superstition of the Catholic church. This superstition is seen as relatively harmless on its own, something to be held up as an example by the narrator at the end of the novel. However, more damaging to both the science behind the wax figure, and the heroine who discovers it, is the notion that as an object that misleads the viewer (that is as something that is read as "real," but in the eyes of the narrator—and British culture at the time—is not) this wax figure represents the dangers of relying on false evidence to understand the world around you.

The overlap of science and spectacle, exemplified by the famous "Bird in the Air Pump" painting at the beginning of the century had taken an even more macabre turn at the end to the eighteenth century when Marie Tussaud brought her wax figures from Post-revolution Paris to London. No longer could the practice of creating anatomical wax figures be divorced from its origins in death (if it ever could) and the violence that anatomical modeling—especially that of a seemingly healthy, young person—implies. This can be seen in the shift away from such figures as the "Anatomical Venus" on display in La Specola, which is often cited as a central example of Italian waxworks. The problem with holding up the "Venus" as representative is that while it may accurately depict of human anatomy, the welcoming, lifelike expression and idealized exterior has more in common with the Arcadian illustrations of the flayed men and women in early anatomy texts than with the flayed and pathologized wax studies on display at La Specola.[331]

Nonetheless, both the Anatomical Venus and Ann Radcliffe's wax figure point to the hypocrisy of discounting the value of the anatomized body as mere spectacle. To do so ignores the history behind these figures as objects of knowledge.[332] The late eighteenth-century catalog from Rackstrows makes clear that both the body, and its representations in wax, can be viewed as entertainment, but this does not mean that waxworks are not also instructive. All of this "pother" over an image of wax is, in the end, a complex meditation on the fact/fiction divide. Through the presentation of Italian

[331] Susini, Clemente. "Anatomical Venus" c. 1780-1782. From: *Encyclopaedia Anatomica: Museo La Specola Florence*. London: Taschen (1999): 100-101.
[332] For a well-illustrated account of the history of the Wax Venus at La Specola, see Ebenstein, Joanna. *The Anatomical Venus: Wax, God, Death, and the Ecstatic.* New York: Thames and Hudson (2016).

science as superstition and spectacle, and the privileging of an equally fictitious "reasonable" explanation over the observations of the heroine, Radcliffe both valorizes empiricism, and shows it to be a flawed approach in the face of evidence that is itself both fact and fiction.

Conclusion

One criticism that I have encountered in the process of framing this project is that there is no science in Ann Radcliffe's work. Perhaps the science in Radcliffe's work is so overlooked because as critics in a disciplinary world in which science and literature have been carefully separated, we are painfully unaware of what eighteenth century science looked like, or at least the myriad ways it was presented and talked about, and how much of literate peoples' everyday lives it inhabited. Or, it may be that we are so accustomed to thinking that Gothic science begins with Mary Shelley, that it is hard to recognize the scientific references and methods in works by earlier authors. By looking closer at the variety of ways that scientific information circulated in the eighteenth century, from books to pamphlets and periodicals, to visual art, letters, and literature, we can begin to see more clearly that the boundaries between science and fiction were not stable during this time.

Although this type of critical work is being done in relation to pre-nineteenth century authors such as: Shakespeare, Margaret Cavendish, Jonathan Swift, a sustained study of Ann Radcliffe has much to offer to the larger questions surrounding sensibility and science at the turn of the century, in particular as they apply to the Gothic mode. It is only by reading Ann Radcliffe's novels alongside some of the botany, familiar science, medical, anatomical, and physiognomy texts of the time, that the moments of scientific engagement begin to stand out and become significant to the development of the plot and the characters, and cause us to rethink Ann Radcliffe's relationship to the greater cultural landscape of science and knowledge during the Romantic Period.

In presenting the public and private practice of science during the eighteenth century, Ann Radcliffe was one of many novelists who participated in the print culture of science during this time. Scientific texts were just one way in which eighteenth century readers encountered scientific advances and debates, information and misinformation; novels, poems, and periodicals contributed to transmission of scientific information, as well as reflecting current and past knowledge, while commenting on its relevance to human lives. Radcliffe's use of scientific education and practices within her widely-read novels contributed in nuanced ways to this cultural conversation. Further, her work demonstrates an implicit understanding of the value of science, and an engagement with the role of literature in responding to current debate. In this way, Ann Radcliffe set the stage for later novels that presented science as a powerful element for cultural change: good and bad.

In many ways, Radcliffe's work is closely tied to the Enlightenment ideals of rationalism and an empirical mode of education; however, her juxtaposition of these ideals with gothic settings challenges the limits of familiar education to teach empirical methods in a meaningful way. Although her mysteries are largely resolved by the end of her novels, they are not explained by the heroines themselves, but by the omniscient narrator who has not done the hard work of carefully collecting evidence and developing conclusions based upon that evidence. Because of this, the resolutions only serve to highlight the failure of the characters to rationally deduce the answers along the way. The reader is implicated in this failure as well, which may in part explain the disappointment

that many of her contemporary readers felt about the use of the explained supernatural in her novels.

Ultimately, by examining the use of science in the work of Ann Radcliffe, we can begin to make larger arguments about her contributions to both Gothic literature, and arguments about education and the role of science at the end of the eighteenth century. In an era when ideas about education, empiricism, and rationalism were taking on new meanings, Ann Radcliffe stood very much on the cusp of the Enlightenment project and the dawning age of sensibility. Much as the characters in her novels, who had to negotiate the "gothic cusp" of ruined abbeys and polite education, the supernatural and empiricism, Radcliffe inhabited both the world of scientific development and change, and the cultural backlash that would eventually lead to later Gothic novelists' overt questioning of certain types of scientific practice in the nineteenth century. In order to understand Ann Radcliffe's role in forming these later elements of Gothic literature, we must begin to place her work in closer dialog with both scientific and educational treatise of the late eighteenth century, as well as with other works of fiction published during this time. Only by understanding the greater cultural framework in which she wrote can we discern the unique ways in which she changed the language of the Gothic to create a powerful tool for processing the impact of scientific education and practice on culture. This dissertation is a first step in recovering and defining the Ann Radcliffe's significance in the developing field of scientific fiction.

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