Short Title: Changing the Study of Disease through Epistemic Genre

Title: 'As to the plan of this work ... we think Dr. Baillie has done wrong': Changing the Study of Disease through Epistemic Genre in Georgian Britain

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Summary:

In the eighteenth century, an important part of practice in the study of disease was the writing of case histories, incorporating findings at post-mortem. The use of this epistemic genre reflected the work of medical practitioners with their patients. By contrast, Matthew Baillie's *Morbid Anatomy* (1793) was a work of anatomy on the subject of disease, which promoted an anatomical approach to the study of disease and stemmed from his own, different practice, which was anatomical. This was criticised by contemporaries who were sceptical that such an approach would prove useful to the physician's practice. Baillie's book took on the features of works of anatomy, and omitted many of the features central to the writing of case histories, such as patient narratives. Instead he focused on describing, in generalised terms, the changes in structure caused by disease. These descriptions were valued by contemporaries, who incorporated Baillie's descriptions into their own works, changing the way that cases included anatomical findings. But at the same time, Baillie's later editions contained more features of cases, such as descriptions of symptoms. Thus, individual books worked to integrate epistemic genres, and change practice in the study of disease.

Key Words: Matthew Baillie, epistemic genre, morbid anatomy, case history, study of disease, eighteenth century.

Main Body:

In the preface to his 1793 book, *The Morbid Anatomy of Some of the Most Important Parts of the Human Body*, Matthew Baillie was keen to explain what his work was *not*. It was not a work concerned with cases:

Any works explaining morbid structure which I have seen, are very different in their plan from the present: they either consist of *cases* containing an account of diseases and dissections collected together in periodical publications, without any natural connection among each other; or consist of very large collections of *cases*, arranged according to some order.¹

Instead, Baillie focused on the anatomical changes wrought by disease—as he put it, 'the changes of structure arising from morbid actions'—providing anatomical descriptions of

common and some rare diseased parts.² Cases, in this period, were concerned with the treatment of individual patients over the whole course of their illness, including post-mortem examination. For Baillie, cases distracted from a full explanation of morbid anatomy—the changes in anatomical structure caused by disease—so he largely omitted them from his work. But for the anonymous reviewer of the aptly named *Critical Review, or, Annals of Literature* this was totally inadequate: 'As to the plan of this work, we are sorry to remark, that we think Dr. Baillie has done wrong in departing from the footsteps of [Giovanni Battista] Morgagni'.³ Morgagni's work, *De sedibus et causis morborum per anatomen indagatis* (*On the seats and causes of disease investigated by anatomy,* 1765), was understood by the reviewer as one concerned with cases. What wrong had Baillie done by not writing a book of cases?

The reviewer's criticism centred around genre—'the plan'—and the change that Baillie's publication implied in the way that disease was studied. In this paper, I argue that genre could be employed by historical actors to suggest new ways of working—that different kinds of publication reflected and promoted different kinds of work. Furthermore, through the example of Baillie's *Morbid Anatomy*, I demonstrate that this could be a successful strategy in changing practice, such as the study of disease.

Throughout the eighteenth century, published cases were central to medical practice and the study of disease. Historian Gianna Pomata has argued that the purpose of writing and publishing in the genre that she terms 'case history narratives' was to improve the practice of physicians in the treatment of their patients. A typical case would begin with the medical practitioner describing how the patient presented and what symptoms they had, before moving on to discuss what they diagnosed, how they treated the ailment, what the consequence of that treatment were, and the overall outcome. Often, case histories would finish with a post-mortem examination. Writing in cases enabled physicians to compare and contrast like cases by discerning relevant symptoms, the best methods of treatment, the course of diseases, and likely findings at post-mortem. The narrative and temporal features of cases were vital in such considerations, which gave cases further applications for medical practitioners. As the anonymous critical reviewer observed, comparison between the patient in life and findings at post-mortem after their death enabled connections between symptoms and anatomical lesions to be ascertained:

Morgagni relates particular instances, and after having detailed the symptoms which immediately preceded the death of a patient, presents us with the appearances exhibited on dissection. By thus pointing out and ascertaining the connexion between certain symptoms, and certain deviations from natural structure, he affords the most effectual assistance to the physician, and enables him to judge of the real state of the morbid body, previous to death.⁶

It followed that once able to recognise the connection between morbid findings and symptoms the living patient presented with, physicians might be able to offer more effectual treatment.

This logical structure was a reflection of how physicians experienced and thought about their interactions with patients—in and as cases. John Forrester, characterised the case as a 'style' of scientific inquiry, arguing that the recording of medical cases was either an attempt at standardising the chronology of a disease, or a record of its complexity and the

competing factors at play, that maintained sight of the individual patient.⁸ Building on this characterisation, Mary S. Morgan has emphasised the role that case studies have as vehicles of discovery through their use to define and explain a problem within a real-life context.⁹ In the context of eighteenth-century medicine, the publication of cases were thus directly related to attempts at improving the practice of physic and knowledge of disease. Within the narrative of an individual encounter, the physician was able to provide solutions or definitions of the whole gamut of issues they might face in practice.¹⁰ Whilst Morgagni was the exemplar in this regard, cases were published by a wide variety of medical practitioners both in books and periodical publications in the late-eighteenth century, including by Baillie himself.¹¹ The reviewer therefore expected learned discussion of disease to be written in the form of case histories. It was the standard way in which disease was considered and published on in this period, as cases best reflected medical practice and thereby held the most utility to physic.

But Baillie published *Morbid Anatomy* in a different genre to that of cases; he published a work of anatomy on the subject of disease, in a genre that I term the 'instructional anatomical description'. By doing so, Baillie promoted a different way of studying and thinking about disease—through anatomy. Baillie could have written a work of cases—a number of his published papers were cases—but he did not. Instead, Baillie explicitly emphasised that Morbid Anatomy was written as a work of anatomy to his readers, and employed the epistemic strategies of anatomy books in presenting his work. Central to this presentation was the omission of the narrative and temporal aspects of the anatomist's interaction with the cadaver, in order to present anatomical findings as generalised knowledge that was applicable across time and space. The results of the messy, difficult business of dissection were presented essentially as a guidebook to the human body. Harold J. Cook has identified this as an ontological impulse that served to solidify the generation and sorting of 'true' facts about natural materials—what John V. Pickstone termed a 'culture of fact'. 12 This was a natural historical practice that employed various crafts to make, describe, and classify anatomical knowledge. 13 To illustrate the difference consider the different 'literary strategies' employed to engender trust by the reader in the claims of the text. 14 Where physicians writing cases included aspects like including all relevant detail, their own role in the proceedings, and confessing difficulties in their work, Baillie emphasised his unparalleled (though admittedly incomplete) access to museum collections and personal interactions with the cadaver, alongside his judiciousness in separating relevant from irrelevant appearance. 15 Rather than engendering trust through appearing as an exemplary witness then, Baillie engendered trust in his work through being an exemplary empiricist. 16 This was the crux of the reviewer's critique: what relevance did such work have to understanding cases, and to improving the practice of physic?

For his part, Baillie outlined a different logical structure for the study of disease compared to cases in *Morbid Anatomy*: studying morbid anatomy would lead to a better understanding of morbid action, which in turn would enable a better knowledge of symptoms and, eventually therapeutics.¹⁷ This was not necessarily intended to completely supplant the case history. Though Baillie specifically differentiated his own work from that of Morgagni's, he nevertheless described *De sedibus* as "stupendous".¹⁸ Rather, Baillie's approach to the study of disease reflected and promoted his education and practice as an anatomy teacher at the Great Windmill Street school, London, where much of Baillie's study

of disease took place. The school, which Baillie had inherited from his uncle, William Hunter (alongside one of Hunter's assistants, William Cruikshank), had one of the largest collections of anatomical preparations in Europe, which included an extensive number of preparations demonstrating disease. However, the method of obtaining bodies—typically via graverobbing—ensured that the cases of those dissected at the school were unknown. Hence Baillie's interest in treating disease anatomically, that is, descriptively, producing accounts of diseased structures that generalised his observations in an attempt to produce a series of canonical descriptions in the manner of an anatomy book. Aside from anything else, such work used the museum's preparations productively in the pursuit of knowledge about disease. In part then, *Morbid Anatomy* was a demonstration of a how practitioners of anatomy who had similar material circumstances to Baillie might be able to contribute to the study of disease. As the response of the critical reviewer demonstrates, this was controversial. But as I discuss in the conclusion, it was also successful in changing how disease was studied in Britain in the late Georgian period.

The dispute and its consequences have wider historical import in understanding the relation between anatomy and disease in the late eighteenth century. Baillie's work has typically been viewed as extending the work of Morgagni by historians; the study of disease gradually becoming more anatomically focused as the famous 'birth of the clinic' drew near. ²¹ Yet this dispute shows that in Britain, the pursuit of cases (incorporating post-mortem examination) was continuous with Morgagni's work, and the anatomical study of disease as defined by Baillie was not. Such a disparity emphasises the flexibility of dissection as a tool for inquiry, and suggests that the way in which anatomical inquiry into disease in this period was pursued was, at the very least, an area for debate. Central to this debate was genre.

In making this argument, I build on Pomata's definition of 'epistemic genre'. As she describes, epistemic genres are distinct from literary genres as their authors have cognitive, rather than aesthetic or expressive, aims in writing their works. These texts develop alongside practices, and are designed to contribute to the practice of knowledge-making as it stands within that specific cultural context.²² Pomata emphasises that, following Franco Moretti's conception of a 'population thinking' approach to genre, this definition of genre is nonessentialist (no one ideal type summarises the genre's essence), which enables the study of the changing structure of genres over time.²³ Work on epistemic genre has thus focused on the development of genres in the *longue-durée*. Pomata demonstrates that the case history narrative originated in the Hippocratic corpus and that its evolution was intertwined with two other 'fundamental epistemic genres, the recipe and the commentary', changing in significant ways over time. 24 Similarly, Clifford Siskin's System has recently described the development of 'system as genre' from the seventeenth century to the present day.²⁵ By focusing on individual genres both of these authors have emphasised that writing in epistemic genre is reflective and responsive to scientific practice and also serves to shape it. Genre therefore offers a useful conceptual framework for historians examining changes in scientific practice, their instantiation in written works, and their intersection over time. This paper contributes to this conceptual framework by demonstrating how genre was used by single authors writing individual works to indict change in scientific practice in specific historical circumstances.

Furthermore, my focus on an individual work brings epistemic genre into conversation with work on the history of scientific communication, providing further tools for analysing changing practices over time. The dispute over 'the plan' of the work mirrors

historiographical emphasis on the contested nature of scientific communication in print.²⁶ But Baillie's work was also praised by critics, and was sufficiently successful to warrant a second edition of the work being published in 1797. This mixed reception provides an opportunity to explore a historical contestation over medical practice in action as it appeared in print. In this paper, I therefore follow Baillie's work from its conception, through its initial reception, to the changes that Baillie made for his second edition, and end with a short discussion of the uptake of morbid anatomy as a practice in the nineteenth century. In doing so, I employ the heuristic of Robert Darnton's 'communication circuit' that follows 'messages' instantiated in print through the stages of authors and publishers (here incorporating printers and booksellers), to readers, and then back to authors and publishers.²⁷

Thus, the first section focuses on the author, examining Baillie's influences and intentions in writing Morbid Anatomy as a work in the instructional anatomical description genre. I show that though Baillie might have written Morbid Anatomy as a work of cases, he instead employed the form and format of William Hunter's non-illustrated An Anatomical Description of the Human Gravid Uterus and Its Contents (1794) to establish how his alternative vision of the study of disease would work in practice in publication. The second section goes on to examine the varied reaction to the work from readers and Baillie's response. In London, periodicals highlighted virtues of the descriptions while questioning the overall utility of the work for anyone other than students because of its 'plan'. Meanwhile, on the continent, Samuel Thomas von Sömmering almost immediately translated the work, greatly praising the 'plan' yet criticising its descriptions. These differing reactions suggest why Baillie's work—although criticised—was successful enough to warrant a second edition. Baillie responded to this via his editing of the second edition. I show that Baillie made concessions to his critics at the same time as he maintained the original purpose of his work.²⁸ Meanwhile, his indictment to change was successful, though not in the way that Baillie necessarily envisaged. Initially Baillie's general descriptions of morbid anatomy were used by medical authors in their own works of cases, replacing traditional explanations based on individual cases. The paper therefore demonstrates how genre can also be a historical tool linking individual books by single authors to the wider histories of publishing, practice, and reading scientific works.

1: *Morbid Anatomy* as a work in the Instructional Anatomical Description Genre

That Baillie wrote *Morbid Anatomy* in the instructional anatomical description genre was a reflection of both his education under William Hunter at the Great Windmill Street school, and his work teaching anatomy there. Specifically, the collection of anatomical preparations at the school became the basis for Baillie's book. This made the writing of case histories difficult as the vast majority of cadavers were obtained through bodysnatching, even after Baillie began his work at St George's Hospital, so their cases were unknown.²⁹ However, this inheritance did not make the final form of *Morbid Anatomy* inevitable, as Baillie's publications in periodicals like the *Philosophical Transactions* demonstrate. At the Royal Society, Baillie presented his morbid anatomy findings within the confines of a case history, rendering their content intelligible within standard ways of presenting medical practice. In *Morbid Anatomy*, however, Baillie promoted his alternative conception of how the study of

disease ought to be undertaken through genre, which worked to promote his vision of a changed practice in the study of disease. I argue that this vision was to treat disease as an anatomical subject, and demonstrate that the way in which he wrote *Morbid Anatomy* fulfilled this vision. The different publishing strategies he pursued in periodical publications compared to his book reflected different aims and circumstances for his work. Thus, though there were certainly pragmatic reasons to write *Morbid Anatomy* as an anatomy book, Baillie did so for epistemic reasons: he wanted to demonstrate the validity of an anatomical approach to the study of disease. To do so, he modelled his own work especially on the form and format of Hunter's *An Anatomical Description of the Human Gravid Uterus*, which he published on his mentor's behalf in 1794, though it naturally its specific features were shared by other anatomical works. This ensured that *Morbid Anatomy* was seen as a work of anatomy in both its content and its 'plan'.

After Hunter's death in 1783, Baillie (and William Cruikshank) inherited Hunter's school. Following Hunter's example, they continued to teach anatomy through lectures, demonstrating dissection to students, showing anatomical preparations in the classroom, and then teaching students these techniques before giving them their own cadavers on which to practice anatomy. Much of this work was based on the supply of bodies by Resurrection men. Cadavers were integral to all teaching at the school as well as being objects of inquiry for the anatomists. Overlaps between these roles occurred as a matter of course. For example, in Baillie's first paper published in the *Philosophical Transactions*, he related that a 'remarkable Transposition of the Viscera' was found in a cadaver originally given to a student:

a male [...] was brought for dissection in the common way to Windmill-street. Upon opening the cavity of the thorax and abdomen, the different situation of the viscera was so striking as immediately to excite the attention of the pupils who were engaged in dissecting it.

The body was soon given to Baillie, who engaged in 'repeated dissections' accompanied with faithful 'drawings, and [...] a tolerably distinct account of this singular lusus naturae'.³² The cadaver in question thus changed from a teaching tool to an object of inquiry due to its display of an uncommon appearance upon dissection. The information derived from the cadaver was then preserved in text and image ready for use in instruction in the future. This example reflects how and why preparations of diseased appearances were made at the school. They were mostly made when accidentally discovered in cadavers used for teaching and retained for the purposes of inquiry and teaching.³³ But the system's reliance on graverobbing—hospitals were not the major source of bodies before the nineteenth century—meant that much of the collection of preparations was without the case history of the individual. Due to the bodies being stolen, the information was not available. As the collection at Great Windmill Street became the material basis for *Morbid Anatomy*, it was difficult for Baillie to provide case histories for morbid appearances where the patient had not been seen alive by any member of the school.³⁴

But it was not impossible. Though the material that Baillie discussed in his papers often did not lend itself to presentation as a case history, he nevertheless used it for this purpose in periodical publications both before and after publishing *Morbid Anatomy*. Baillie's second paper published in the *Philosophical Transactions* on a 'peculiar change in structure

in the human ovarium' is a case in point. All of the information Baillie had about the cadaver prior to dissection—because it had been received by the school in the 'common way'—was based on the individual's outward appearance: 'a female child, about twelve or thirteen years old, which was lately brought to Windmill-street for dissection'. The individual clearly had not been seen by Baillie whilst alive, so knowledge of the individual's illness, symptoms, and the course of disease (if they had indeed died from a disease) were unknown. However, prior to the description of the cadaver as he first saw it in the paper, Baillie provided a short scholium that discussed various theories on the production of such appearances. According to Baillie it was typically thought that such appearances were the result of 'generation' gone awry—such appearances sometimes had 'hair and teeth' that suggested such a conclusion. Yet Baillie's 'case'—his own term—suggested that 'the ovaria in women have some power within themselves of taking on a process which is imitative of generation, without any previous connection with a male'. 35 The introduction to the paper then, suggested a case history for the cadaver. Though the bulk of the paper was concerned with tactile and visual information found at dissection ('I found the right ovarium converted into a substance, doughy to the touch, and about the size of a large hen's egg'), there was nevertheless a narrative to the 'case'. ³⁶ The paper adhered to the case history narrative genre.

Baillie therefore *could have* published *Morbid Anatomy* as a work of cases, but did not. Indeed, Baillie continued to publish case histories after the publication of his book, emphasising that the presentation of *Morbid Anatomy* as an anatomical work had wider significance to Baillie's work. Specifically, he outlined an alternative logical structure on how the study of disease ought to be undertaken in the preface of *Morbid Anatomy*. For Baillie, first understanding the structure of the diseased body would lead to greater understanding of how disease progressed:

as we shall become acquainted with the changes produced in the structure of parts from diseased actions, we shall be more likely to make some progress towards a knowledge of the actions themselves.

This would then aid medical practitioners' ability to differentiate between similar changes leading to a better understanding of the relation between symptoms and the actions of disease, helping to distinguish between diseases with more accuracy. In turn, this would aid inquiry into therapeutics. Other advantages were that knowledge of diseases that altered parts that were 'but little, or not at all known' would improve, and that unsubstantiated 'theories taken up hastily about diseases' would be exploded.³⁷ Instead of focusing on the practice of the physician, as case history narratives did, morbid anatomy would focus solely on the evidence of the body as the basis of understanding disease.³⁸ The descriptions had to avoid the pitfalls of being too specific or diffuse, which Baillie saw as a problem inherent in the treatment of post-mortem findings within the confines of cases. By focusing on morbid anatomy alone, Baillie provided generalised knowledge on disease that synthesised his observations of disease and regularised morbid structures as common (or otherwise) through treating them like regular anatomy.³⁹ Through this anatomical focus, not only would theoretical accounts of disease ungrounded in evidence be avoided, but better understanding of symptoms and improved therapeutics would gradually come to be within reach.

Such an idealised picture was reflected in the presentation of *Morbid Anatomy* as a descriptive work of anatomy. Whilst Baillie's work shared similarities with a number of

anatomical works in the period, I focus on the similarities between *Morbid Anatomy* and Hunter's *An Anatomical Description of the Human Gravid Uterus*, which Baillie published in 1794 on Hunter's behalf posthumously because their similarities point to wider concerns shared between Baillie and Hunter, especially in regard to the relation between anatomy and physiology (or morbid anatomy and morbid action).

An Anatomical Description had been intended by Hunter to properly describe the anatomy of the gravid uterus, as his earlier publication, The Anatomy of the Human Gravid Uterus, Exhibited in Figures (1774), had, as Baillie put it, 'merely explained' the plates. 40 Baillie inherited manuscript after Hunter's death in 1783 but did not publish it initially as it was unfinished and, in his own words, he was unable, at that early point in his career, to judge 'whether the Manuscript was in a state fit for publication or not'. He revisited the work in the early 1790s—likely as he began work on his own book—and realised it needed little correction for publication. 41 Perhaps related to Baillie re-examining Hunter's manuscript whilst he was writing his own work, there were striking similarities between Hunter's and Baillie's works. This ranged from practicalities—both works were published by Joseph Johnson and George Nichol, two of the most prominent medical publishers of the period—to the presentation of the works' content.⁴² Most significantly, both books were text-only works on anatomy designed to accurately describe their subject. ⁴³ As Baillie explained in *Morbid* Anatomy: 'The object of this work is to explain more minutely than has hitherto been done, the changes in structure arising from morbid actions in some of the most important parts of the human body', and as he put it in An Anatomical Description of the Human Gravid Uterus: 'An accurate Anatomical Description of the Human Gravid Uterus and its Contents, has not hitherto been published in this, nor I believe in any other country'. 44 Instruction was thus a central aim for both works, delivered through accurate descriptions of anatomy.

The format of the two works was also similar. Baillie emphasised that he organised *Morbid Anatomy* like a work of anatomy: 'a local arrangement, very much in the same manner as if we were describing natural structure'. The work was therefore divided into chapters concerned with the main anatomical subjects ('Diseased Appearances of the Pericardium', 'Diseased Appearances of the Heart' and so on), just as Hunter's work had been ('Of the Size of the Uterus', 'Of the Contents of the Pregnant Uterus', 'Of the Membranes' and so on). Then chapters were further subdivided into specific parts. In Baillie's work they were divided into specific appearances of diseased structures ('Inflammation of the Pericardium – Adhesions of the Pericardium to the Heart – Dropsy of the Pericardium' and so on), whilst in Hunter's, into specific parts ('Amnion', 'Chorion', 'Decidua' and so on for the chapter on membranes). Afo

As well as the rhetorical and organisational alignment of his work with that of the instructional anatomical description genre, Baillie employed similar techniques of description. The descriptions had three key features that I will briefly outline in turn. First, they were generalised descriptions, though often based on individual preparations. Secondly, they tended to eschew theorising over physiology or morbid action, but where such speculations were entertained it was clearly flagged for the reader. Thirdly, the descriptions focused on enabling the reader to recognise such structures in their own work, with a concomitant emphasis on orientation, comparison, and detail in the descriptions of anatomy.

Baillie and Hunter based their general descriptions of anatomy on a combination of their knowledge of the subject, and individual preparations that demonstrated specific points. For example, in Baillie's collection the preparation '4.O.5' in 'Morbid Anatomy of the Heart and its Vessels' specifically showed: 'A considerable portion of a heart, the surface of which [the pericardium] is covered by a thick layer of coagulable lymph resembling lace'.⁴⁷ In *Morbid Anatomy* the comparison with lace was also used, but was now generalised to describe all such appearances: 'Upon its inner surface [of the pericardium], this matter very frequently throws out little irregular laminated projections, giving the appearance of a lace work'.⁴⁸ The veracity of the general claim rested on Baillie's 'very frequent opportunities of examining diseases in dead bodies'.⁴⁹ Similarly in Hunter's work, the description of the size of the human gravid uterus rested on individual preparations—represented by his earlier published illustrations—and his authority in determining that the size represented there was 'common': 'The common size of the pregnant uterus may be understood by casting the eye over the first, second, fourth, eleventh, and thirteenth plates'.⁵⁰ Both works thus presented their descriptions as being applicable to similar anatomical appearances.

Both books also tended to avoid theorising upon the actions of the body in relation to their anatomical findings. In this regard, Hunter had been clear in his lecturing that he regarded ungrounded theorising in physiology as sophistic and a source of error.⁵¹ Hunter advocated a physiology that was based on anatomical findings, in a similar manner to how Baillie later perceived the relation between morbid anatomy and morbid action. Being clear on anatomical findings was therefore of paramount importance; supposition was largely avoided in their works. But there were instances in both works where the authors occasionally suggested such conclusions based on the anatomical evidence. They did so while taking care to emphasise the nature of the supposition they were making. For example, Baillie suggested that the vascularity of coagulable lymph that surrounded the inflamed pericardium was a 'circumstance' that 'becomes a very convincing proof of this extravasated matter possessing a living principle', linking this suggestion to John Hunter's work.⁵² The phrase flagged the conclusion as a speculation at the same time that it condoned it. Similarly, Hunter suggested that the 'peculiarity' of human uteri in an unimpregnated state having 'two lateral cavities, so as to resemble the two horns of the uterus in a quadruped' might 'perhaps explain the unequal extension of the two sides, right and left, in some instances of pregnancy'. 53 Again, the hedged nature of the phrase demonstrated to the reader the speculative nature of theorising physiological action.

Central to each work was, of course, the business of describing the anatomical structures in question. The purpose of this was primarily to enable the reader to recognise those structures within a cadaver. Both works therefore focused on orientating the reader in the body before detailing the specific features of the body through comparison with familiar objects alongside widening potential recognition of the structure by adding further detail. In Baillie's work, orientation focused on where the structure in question was likely to be found, for example: 'In opening dead bodies, adhesions of the pericardium to the heart, are not uncommonly found. The adhesion is sometimes at different spots; at other times is extended over the whole surface'. Then, in order to recognise the specific type of diseased appearance, comparisons with other more familiar things were made, such as: 'When it is a thin membrane, it resembles very much, the common cellular membrane of the body'. Further details were then discussed, widening the opportunities for recognition by the reader through

increasing the number of ways in which the structure had been discussed. In this case, 'the adhesion is in both cases capable of being rendered vascular from injection'. ⁵⁴ The description therefore focused on contextualising the structure for the reader. Baillie assumed a knowledge of anatomy from the reader, and also that they would have familiarity with the art of injecting vessels with various substances—a chief experimental method for anatomical investigation in this period. ⁵⁵ Hunter's work described anatomy in the same way. For example, it orientated the reader ('The navel string is a cord made of three large vessels twisted together, which at one end is fixed to the child's navel, and at the other to the placenta'), made comparisons ('Sometimes they are uniformly and closely twisted, like a rope, in their whole course'), and gave further detail ('the twisting of the navel string has been in the same direction'). ⁵⁶ Though not an exhaustive list of the methods by which Baillie and Hunter described anatomy, it is clear that they shared methods of description: Baillie's *Morbid Anatomy* was a work in the instructional anatomical description genre.

2. Comment, Criticism, and the Second Edition of Baillie's Morbid Anatomy

The Critical Review's assessment of Baillie's book may have been scathing, but this was not the whole picture. Other London reviewers gave qualified praise regarding the utility of the descriptions, whilst one reader, Samuel Thomas von Sömmering was so impressed by the 'plan' of the work that he immediately set about translating the work into German, though with his own improvements.⁵⁷ At the same time, the work was successful enough in an economic sense to encourage Johnson and Nicol to publish a second edition in 1797.⁵⁸ This new edition was much changed as Baillie greatly expanded the work. In part, the changes appeased his critics through various clarifications and additions, most notably the addition of general descriptions of symptoms to the work—an improvement specifically suggested by two London periodicals, British Critic and Literary Magazine. Despite these changes, the work remained a work in the instructional anatomical description genre. Baillie continued to base his descriptions on his own observations, and the sections on symptoms were placed at the end of chapters, maintaining the disruption to the case history narrative commenced in Morbid Anatomy. But this did not simply indicate success for Baillie's work. In the final part of this section, I demonstrate that the success that enabled Baillie to publish subsequent editions was based on the incorporation of Baillie's descriptions into works of cases by other authors. This had the effect of reshaping the case history narrative in this period. For our purposes this emphasises the interactions between genres as central to the study of disease in this period.

Whilst *Morbid Anatomy* was criticised by London reviewers for explicitly not following Morgagni's 'plan', it was also praised there for its descriptions of morbid anatomy. *Analytical Review: or, History of Literature,* for instance, noted that the subject of the work was pertinent and deserved attention:

It is somewhat extraordinary, that the morbid structure of different parts of the human body should have been almost totally overlooked and neglected, while the knowledge of anatomy was making such rapid advance to a state of perfection. Such, however, is the fact: we must therefore feel much obligation to Dr. B. for drawing the attention of the faculty to this important point.⁵⁹

And the work was viewed as well-executed in that regard, as this example from *Monthly Review, or Literary Journal* shows:

the utility of the design cannot be questioned; and, to those who are acquainted with the author's peculiar advantages, as well as with his talents for improving them, it will as little be a matter of doubt that the execution of it will be correspondent. Extensive observation, joined to great clearness and accuracy of description, without any impertinent mixture of hypothetical matter, characterizes the performance. ⁶⁰

London reviewers accepted that morbid anatomy was an overlooked subject, but viewed the descriptions of morbid anatomy as of particular 'utility' to students (who were surely a key audience for the work) rather than practitioners.⁶¹

Part of the utility of accurate descriptions of morbid structure was related to case histories, which regularly contained discussion of post-mortem findings in this period. Better descriptions were therefore of use even if the overall plan of the work concerned was inadequate. Such was the conclusion of the *Analytical Review* which argued that whilst Baillie's work contained very valuable information, quite what the value was of confining the work only to descriptions of morbid anatomy was unclear:

it only remains for us to observe, that it seems to be principally useful as containing a great number of valuable and curious facts. The practical reflections and observations are, perhaps, not quite so numerous or important as the nature of the undertaking had led us to expect; ... – It is very difficult at first to fix upon the best plan for the execution of such a work as the present. How far, therefore, the arrangement followed by our author may be considered as proper and satisfactory, and whether a simple and distinct narration of diseased appearances be only necessary, we shall leave to the decision of the medical reader. ⁶²

The issue was that it was not obvious how much the descriptions would be practically useful for physicians, despite the explanation that Baillie provided in his preface. Physicians' practice was done through cases; *Morbid Anatomy* specifically abandoned this method. What reviewers, especially the reviewer from *Critical Review*, wanted was precisely that which Baillie omitted through his specific focus: the presenting symptoms, methods of treatment, the course of disease, the post-mortem findings, and overall the narrative that would allow comparison between the living and dead body. Failing that, two publications, *British Critic* and *Literary Magazine*, simply called for 'a general account, under each head, of the most remarkable symptoms'. That Baillie did not do so led the *Analytical Review* to speculate on the author's quality: 'the execution of a work of this kind, more, probably, depends upon industry than genius'. Genius was Morgagni's *De sedibus*, though industry was of use.

The Prussian anatomist and physiologist Samuel Thomas von Sömmering was more sympathetic to Baillie's intentions. Sömmering had likely attended both of the Hunter brother's lectures during a two-month stay in London during 1778, and seems to have admired their work. ⁶⁵ He praised *Morbid Anatomy's* intentions, but felt that the execution was lacking in parts, which he remedied to his satisfaction in his translation produced just a year after its initial publication. In his preface Sömmering discussed exactly why *Morbid Anatomy* was worthy of such speedy translation. It contained 'exquisite' descriptions of morbid anatomy and judgements based on them, with a model of studying disease to match.

Sömmering saw Baillie's model as appropriate for his own needs, as it gave him 'the opportunity [...] to align my own pathological observations with an extant system'. ⁶⁶ But primarily he saw Baillie's practice of morbid anatomy as better placed to discuss findings made in the diseased cadaver compared to the examinations that generally took place as part of the practice of case histories:

autopsies, whilst nowadays far from infrequent, have yet so infrequently contributed to shedding light on pathology. They know neither the What nor the How of that which they are supposedly looking for; they dissect the cadaver in the accustomed fashion of their fraternity, and then wonder why they encounter nothing special.⁶⁷

Thus, Baillie's work was worthy of both praise and emulation:

Mr Baillie's [...] shows altogether the purest love of truth—altogether more intelligent, clearer understanding, free of prejudice—altogether one recognises a general overview of the morbid changes of which the parts of our body are capable.—Here, attentive, thoughtful, practical doctors will surely find facts which will bring them to the actual basis and true cause of many of the symptoms they observe; perhaps to receive long awaited explanations. —Others, however, will balk at facts which will accord badly with some famous theories; consequently they serve as a rebuttal to those theories.⁶⁸

Despite this effusive praise for Baillie's plan, Sömmering made significant changes to Baillie's work, mostly through the addition of new material. He added further clarifications, new descriptive features, and his own observations—including of different diseased appearances—to Baillie's work, with the intention of making it more useful to the practitioner. In the pursuit of clarity, he also removed some descriptions. Sömmering also included many more references than Baillie had, including to relevant illustrations. ⁶⁹ Most of those referred to were from German-speaking lands. Thus, in the first chapter, works by Johann Friedrich Blumenbach, (likely) Christoph Gottlieb Büttner, Johann Christoph Pohl, Christian Gottlieb Selle (all German-speaking lands), Eduard Sandifort (Netherlands), Théophile Bonet, Albrecht von Haller (both Switzerland), Georg Heuermann (Denmark), Alexander Munro secundus (Scotland), Joseph Lieutaud (France), as well as his own were referenced alongside illustrations by Johann Gottlieb Walter (Prussia), Sandifort, and Büttner. ⁷⁰ Baillie's work was thus brought into conversation with European sources. In short, though Sömmering was impressed with the 'plan' of the work, he wished to improve its execution. This was the mirror image of London reviewers who appreciated the work's execution, but disproved of the 'plan'.

This mixed reception informed the changes that Baillie made to the second edition of *Morbid Anatomy*. In the new preface Baillie was clear that his work remained principally based on his own observations, but had been influenced by Sömmering's translation: 'The additions are principally derived from what I have remarked myself; but they are also taken from the observations of others, and more especially from those of Dr. Soemmering' who Baillie described as adding 'many new Cases, and copious Notes' to his work.⁷¹ The pointed description of much of Sömmering's work being the addition of cases was, however, justification for Baillie's comment that 'I might have derived much more assistance from the valuable labours of Professor Soemmering, but many of the additions which he has made do

not strictly fall within it'. Thus, Sömmering's translation was an important consideration in Baillie's attempts to improve the content of the work, but not the sole motivating factor.

A brief survey of how Baillie used Sömmering's work in relation to the first chapter, 'Diseases of the Pericardium', serves to make the point. In his translation, Sömmering worked to make the descriptions of morbid anatomy more intelligible to the reader. For example, he deleted the description of the pericardium as 'like a bag' wherever it appeared in Baillie's chapter, and added further clarifying comments such as alternative weights where Baillie had specified quantities (Sömmering added 'a Paris line' to Baillie's 'thick as a half crown' when discussing the thickness of the layer of coagulable lymph that sometimes formed after inflammation of the pericardium). He also included his own descriptions where he felt appropriate (Sömmering described coagulable lymph as 'cellulose-like' for instance), all with the intention of making the work clearer for the reader. Baillie ignored these changes when writing his second edition—the clarifications were of insufficient use to Baillie to warrant inclusion. However, where Sömmering discussed the intellectual content of the work, Baillie was more responsive.

Two examples serve to show how Baillie used Sömmering's translation to improve his second edition. First, in discussing the possibility of coagulable lymph lining the pericardium 'possessing a living principle', Sömmering assigned this to the already existing vessels moving as a result of the inflammation:

Why should one be unable to accept this? The injection indeed shows clearly enough that the vessels of the pericardium are lengthened and spread, and it is precisely because the blood vessels are extended into the coagulable lymph that the same is given life.⁷⁴

Hence, Sömmering assigned the 'living principle' of the matter to the movement of already extant vessels. In his second edition, Baillie clarified his position on this in response to Sömmering, arguing that the vessels were, in fact, new and demonstrated that *the matter* possessed a living principle:

These newly formed vessels become a very convincing proof of this extravasated matter possessing a living principle; for one cannot imagine that blood vessels would shoot into, and form a number of new branches in, a substance which is dead.⁷⁵

Baillie therefore used Sömmering's work as a guide to improving the clarity of his own.

Secondly, Baillie also added content to his second edition that Sömmering had added to Baillie's first. The clearest example of this is Baillie's inclusion of a new diseased appearance in the same chapter, 'Pericardium found wanting'. The description was not included in his first edition, despite Baillie having read a paper on the subject in 1788.⁷⁶ His later decision to include the appearance mirrored Sömmering's inclusion of the appearance, for which he gave references to Haller and Dinkler. Baillie did not imitate Sömmering's content on the matter, once again preferring his own observations, but was surely prompted by Sömmering into the statement that 'A few instances have occurred, in which the pericardium has been wanting, from a defect in the original formation'.⁷⁷ The translation was therefore a spur for Baillie to include new content as well as clarify previously published content.

Baillie also attempted to improve his work based on his further practice in the intervening years between the two publications. Some of these changes were clarifications—for example, Baillie added proper subtitles for 'Scrofulous Tumours in Pericardium' and 'The Pericardium almost dry' in the body of the text, where previously they had only appeared in the contents of the work. ⁷⁸ But others were new observations. In the section 'The Pericardium cartilaginous, and bony', for instance, Baillie included a wholly new example which Baillie originated from his own continued practice as a morbid anatomist. ⁷⁹ The work remained based on Baillie's observations.

Morbid Anatomy equally remained a work in the instructional anatomical description genre despite the addition of symptoms. Adding general accounts of symptoms to the work had been suggested by both the *British Critic* and the *Literary Magazine and British Review*. ⁸⁰ Baillie's compliance to this suggestion meant that it was now possible to piece together 'the connexion between certain symptoms, and certain deviations from natural structure' which, recall, the *Critical Review* saw as affording 'the most effectual assistance to the physician, and enables him to judge of the real state of the morbid body, previous to death'. ⁸¹

But in adding symptoms, Baillie was at pains to emphasise both the difficulty involved with doing so, as well as the limited use of discussing symptoms in this manner. He emphasised the inadequacy of his execution before outlining in detail what the difficulties attending to the project were: symptoms do not uniformly connect to morbid anatomy; symptoms might be the same for different changes in structure, which was especially a problem when patients attempted to describe symptoms attending to diseases of the brain or heart; 'Medical men' might ask poor or misleading questions when ascertaining symptoms. All of these were painted as 'formidable difficulties, which obstruct the progress of our knowledge of the symptoms of diseases'. 82 Baillie offered scant consolation regarding this by stating that it was only the 'accumulated observations of many individuals will probably, at length, in a great measure overcome them'—hardly possible in one work. Baillie therefore did not enter into 'minute detail' on symptoms, focusing on those symptoms 'most strongly characteristic of the diseases to which they belong'. 83 In other words, he described those symptoms that were already well-defined through the observations of many which was necessarily of limited use in advancing knowledge of symptoms, even though they were paired with diseased appearances where possible by Baillie.⁸⁴ As a result, Baillie 'placed' his accounts of symptoms at the end of each chapter so that 'the anatomical part of the work may not be interrupted'. 85 The work was focused on his observations of morbid anatomy, on treating disease as an anatomical subject, and so the regular order of cases—symptoms and then post-mortem findings—was disrupted by Baillie, even as he made available the steps for connecting symptoms with post-mortem findings. Morbid Anatomy remained an instructional anatomical description even as it took on more of the features of the case history narrative.

That Baillie was able to make these changes in his second edition was due to the success of the first. Yet economic success did not entail a straightforward adoption of Baillie's practice to the study of disease. Rather, Baillie's work was initially used by his contemporaries to improve their own works of cases. Works like Disney Alexander's *A Treatise on the Nature and Cure of the Cynanche Trachealis Commonly Called the Croup* (Huddersfield, 1794) and Sayer Walker's *A Treatise on Nervous Diseases* (London, 1796) used Baillie's descriptions in their entirety after the symptoms and course of disease had been

discussed. Similarly, medical authors used important parts of Baillie's descriptions in their own works. For example, the description in *Morbid Anatomy*, 'When the inner membrane of the trachea is inflamed, it is sometimes lined with a layer of a yellowish pulpy matter' was employed by authors writing on the croup. ⁸⁶ John Yelloly described a 'yellowish and pulpy material' found on the inside walls of the trachea and bronchial tubes in his work on the croup, whilst William Davison's work on the same subject stated: 'the croup, when attended with that membranous or pulpy substance, sufficiently described by authors'. ⁸⁷ This description originated in Baillie's work. A search of Eighteenth-Century Collections Online for the terms 'croup' and 'pulpy' appearing together for the period 1700 to 1800 brought up no relevant results before Baillie's publication. ⁸⁸ After 1793 the description of croup as causing a 'yellowish pulpy matter' or similar appeared explicitly in two other works before 1800, and was referenced in another. ⁸⁹

Baillie's more precise descriptions of the changes in structure caused by disease thus had a utility for case history narratives even as the work that contained them embodied a different kind of approach to the study of disease. Indeed, the utility of Baillie's work was such that his contemporaries, like James Johnstone, placed his work in the company of the most significant 'pathological authors' of the time. In Johnstone's 1795 work on the nervous system, he listed the most significant authors as: 'Bonetus, and the later anatomical collections of Morgagni, Lieutand, Dr. Baillie, and others'. 90 Baillie's generalised descriptions of diseased appearances were thus, in this initial period, incorporated into the writing of cases.⁹¹ In the early nineteenth century, the uptake of Baillie's work would extend to his plan, with a number of works on 'morbid anatomy of' a part published in Britain. 92 Meanwhile, Baillie would continue to publish new editions of Morbid Anatomy, with five editions being published in Britain before his death, as well as anatomical illustrations on morbid anatomy. 93 The use of the instructional anatomical description genre to challenge normative practice contributed to the practice of knowledge making through cases by modifying the criteria for acceptable discussion of post-mortem findings. As the example of croup showed, general descriptions of morbid appearances were now used in case histories.

3. Conclusion

This paper has argued that when the conceptual framework of epistemic genre is applied to individual works, historians are better placed to examine challenges and changes to standard practice instantiated through books. Baillie's publication of a work on disease in the instructional anatomical description genre was purposefully designed to promote and sustain his alternative vision of how the study of disease ought to be carried out in contrast to case histories. This desire stemmed from his practice as an anatomist interested in disease, and to carry this project out Baillie purposefully employed the rhetoric, organisation, and descriptive techniques of William Hunter's *An Anatomical Description of the Human Gravid Uterus*. Baillie's work challenged typical practice in the study of disease, and received a mixed reception on publication. London critics saw the descriptions as useful—though mostly for students—but the 'plan'—the genre—as inadequate. By contrast, Sömmering viewed the 'plan' as worthy of emulation but the description lacking. Both of these criticisms influenced how Baillie edited the second edition of his work, though Baillie ensured that the publication remained true to its original intent. Though symptoms and modified descriptions were added

to the work, Baillie ensured that the organisation of *Morbid Anatomy* was not interrupted by these additions, and that the additions were based on his own observations. Throughout the 'circuit' of author, publisher, reader, author, and publisher again, Baillie ensured that the work was an instructional anatomical description of diseased appearances in the human body. At the same time, Baillie's work became a source used in case histories. His generalised anatomical descriptions changing the manner in which case histories discussed post-mortem findings. Rather than comparing singular instances of post-mortem findings with one another, authors of cases used Baillie's generalised descriptions of morbid anatomy.

The manner of *Morbid Anatomy*'s success suggests a further conclusion regarding the study of disease at the turn of the eighteenth century. Historians have long questioned the 'birth of the clinic' narrative that places Paris as the sole centre of innovation in the study of disease at the turn of the eighteenth century. However, there has been little consensus as to what an alternative narrative might look like. The translation of Baillie's work into three continental languages before his death suggests an international context for these developments. Sömmering's swiftness in adding large amounts of secondary sources from the German speaking lands whilst he accepted Baillie's 'plan' as worthy of emulation suggests this international concern, as does Othmar Keel's observation that the second translation of Baillie's work into French (by Denis François Noël Guerbois) translated 'structure of the parts' as 'le tissu'—that famous focus of Xavier Bichat. There was a unity of purpose detected by contemporaries that has not been expressed by historians. Genre provides a key framework for historians understanding the great changes in nineteenth-century pathology in this international context. Across international boundaries publication was an essential way in which practice was suggested, sustained, and normalised.

Acknowledgements

This paper stemmed from my PhD research, which was funded by the School of Philosophy, Religion, and History of Science at the University of Leeds. My thanks to my supervisory team of Adrian Wilson, Jonathan Topham, and Richard Checketts. I am especially grateful for the invaluable help in translating Sömmering's work that was provided by Caz Avery and Ian Avery. Versions of this paper were presented at the Eighteenth-Century Studies Seminar, University of Leeds, Society for the Social History of Medicine Conference, Liverpool, and the International Society for Eighteenth-Century Studies Conference, Edinburgh. My thanks to all of the conference organisers and audiences at those conferences. Finally, thanks to Coreen McGuire, Rebecca Bowd, Anne Hanley, the two anonymous referees and the editorial team for their helpful comments and advice on this paper.

Notes

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¹ Matthew Baillie, *The Morbid Anatomy of Some of the Most Important Parts of the Human Body* (J. Johnson and G. Nichol, London, 1793), p. vi-vii emphasis mine.

² Baillie, op. cit. (note 1), p. i.

³ 'The Morbid Anatomy of some of the most important Parts of the Human Body', *Critical Review, or, Annals of Literature* (A. Hamilton, London, 1794), p. 375.

- ⁹ Mary S. Morgan, 'Case Studies: One Observation of Many? Justification or Discovery?' *Philosophy of Science*, **79**, 667-677 (2012), pp. 671-674. See also: Mary S. Morgan, 'Resituating Knowledge: Generic Strategies and Case Studies', *Philosophy of Science*, **81**, 1012-1024 (2014); Mary S. Morgan, 'Narrative ordering and explanation', *Studies in the History and Philosophy of Science*, **62**, 86-97 (2017).
- ¹⁰ Forrester argues that this aided the physician in the eighteenth-century medical marketplace. Forrester, *op. cit.* (note 7), p. 14.
- ¹¹ For example: Matthew Baillie, 'An Account of a Remarkable Transposition of the Viscera', *Phil. Trans.*, **78**, 350-363 (1788); Matthew Baillie, 'An Account of a Particular Change of Structure in the Human Ovarium', *Phil. Trans.*, **79**, 71-78 (1789); Matthew Baillie, 'On the Want of a Pericardium in the human Body', 'Of uncommon Appearances of Disease in Blood-vessels', 'Of a remarkable Deviation from the natural Structure in the urinary Bladder and Organs of Generation of a Male', 'Case of Emphysema, not preceding from local Injury', *Trans. of a Society for the Improvement of Medical and Chirurgical Knowledge*, pp. 91-102, 119-137, 189-212, 3 vols (J. Johnson, London, 1793), vol. 1.
- ¹² Harold J. Cook, 'The Cutting Edge of a Revolution? Medicine and Natural History Near the Shores of the North Sea', in *Renaissance and Revolution: Humanists, Scholars, Craftsmen and Natural Philosophers in Early Modern Europe* (eds Judith Veronica Field and Frank A. James) pp. 45-61 (Cambridge University Press, Cambridge, 1993), pp. 49-50; John V. Pickstone, 'Working Knowledges Before and After circa 1800: Practices and Disciplines in the History of Science, Technology and Medicine', *Isis*, **98**, 489-516 (2007), p. 499.
- ¹³ Pickstone, *op. cit.* (note 12), pp. 494-495; John V. Pickstone, *Ways and Knowing: A New History of Science, Technology, and Medicine* (Manchester University Press, Manchester, 2000).
- ¹⁴ Steven Shapin, 'Pump and Circumstance: Robert Boyle's Literary Technology', *Social Studies of Science*, **14**, 481-520 (1984), p. 492; Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton University Press, Princeton and Oxford, 1985), pp. 60-65. See also: Peter Dear, *The Literary Structure of Scientific Argument: Historical Studies* (University of Pennsylvania Press, Philadelphia, 1991).
- ¹⁵ Baillie, op. cit. (note 1), pp. viii-xi.
- ¹⁶ That is, in terms of 'selecting, comparing, judging, generalizing' from nature. Lorraine Daston and Peter Galison, *Objectivity* (Zone Books, New York, 2007), pp. 58-59.
- ¹⁷ Baillie, *op. cit.* (note 1), pp. ii-iii.
- ¹⁸ Baillie, op. cit. (note 1), p. vii.
- ¹⁹ The best account of the use of bodies at the school is: Anita Guerrini, 'The Value of a Dead Body', in *Vital Matters: Eighteenth-Century Views of Conception Life and Death* (eds Helen Deutsch and Mary Terrall), pp. 246-264, (University of Toronto Press, Toronto, 2012).
- ²⁰ On anatomical museums in the eighteenth century see: Carin Berkowitz, 'Systems of Display: The Making of Anatomical Knowledge in Enlightenment Britain', *British Journal for the History of Science*, **46**, 359-387 (2013); Cook, *op. cit.* (note 12); Simon Chaplin, 'Dissection and Display in Eighteenth-Century London', in *Anatomical Dissection in Enlightenment England and Beyond: Autopsy, Pathology, and Display* (ed Piers Mitchell), 95-114 (Ashgate, Farnham, 2012); Simon Chaplin, 'Anatomy and the "Museum Oeconomy": William and John Hunter as Collectors', in *William Hunter's World: The Art and Science of Eighteenth-Century Collecting* (eds E. Geoffrey Hancock, Nick Pearce, and Mungo Campbell), 27-41 (Ashgate, Farnham, 2015); Anita Guerrini, 'Duverney's Skeleons', *Isis*, **94**, 577-603 (2003); Marieke M.A. Hendriksen, *Elegant Anatomy. The Eighteenth-Century Leiden Anatomical Collections* (Brill, Leiden/Boston, 2015). See also: Samuel J.M.M. Alberti, *Morbid Curiosities: Medical Museums in Nineteenth-Century Britain* (Oxford University Press, Oxford, 2011).
- ²¹ Both of the main accounts of eighteenth-century developments in the study of disease do this. Roy Porter states that Baillie was 'Building on Morgagni': Roy Porter, *The Greatest Benefit to Mankind A Medical History of Humanity from Antiquity to the Present* (Fontana Press, London, 1997), p. 264. Andrew Cunningham refers to Morgagni and Baillie in the same section on 'Pathology: a sub-discipline of anatomy' as 'our pathologists': Andrew Cunningham, *The Anatomist Anatomis'd: An Experimental Discipline in Enlightenment Europe*

⁴ Gianna Pomata, 'The Medical Case Narrative: Distant Reading of an Epistemic Genre', *Literature and Medicine*, **32**, 1-23 (2014), pp. 7-9.

⁵ Narrative and temporality were also important features of natural philosophy outside of the bounds of the case history genre in the eighteenth century. See for example: Mary Terrall, 'Narrative and natural history in the eighteenth century', *Studies in the History and Philosophy of Science*, **62**, 51-64 (2017).

⁶ 'The Morbid Anatomy', op. cit. (note 3), p. 375.

⁷ Pomata, *op. cit.* (note 4), pp. 2-3; John Forrester, 'If p, then what? Thinking in cases', *History of the Human Sciences*, **9**, 1-25 (1996).

⁸ Forrester, *op. cit.* (note 7), p. 13. The characterisation of the case as a 'style' of reasoning explicitly extended Ian Hacking's delineation of 'styles of reasoning'. See: Ian Hacking, "Style" for Historians and Philosophers', *Studies in History and Philosophy of Science*, **23**, 1-20 (1992).

(Ashgate Publishing Limited, Farnham, 2010), p. 218. See also: Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception* (trans. A. M. Sheridan), (Routledge Classic, London, UK; New York, NY, 1989). An excellent analysis of both 'continuous' and 'discontinuous' narratives regarding the study of disease in the eighteenth century with the 'birth of the clinic' can be found in: Adrian Wilson, 'Porter versus Foucault on the "Birth of the Clinic" (eds Roberta Bivins and John V. Pickstone), *Medicine, Madness and Social History: Essays in Honour of Roy Porter*, pp. 25-35 + postscript (Palgrave Macmillan, Basingstoke, 2007).

²² Pomata, *op. cit.* (note 4), 2-3.

- ²³ Pomata, *op. cit.* (note 4), 3-5; Franco Moretti, *Graphs, Maps, Trees: Abstract Models for Literary History* (Verso, London, 2007).
- ²⁴ Pomata, *op. cit.* (note 4), 6-16.
- ²⁵ Siskin does not use Pomata's term to describe his work, but there are clear similarities: Clifford Siskin, *System: The Shaping of Modern Knowledge* (The MIT Press, Cambridge, MA; London, UK, 2016). Domenico Bertoloni Meli has also suggested that 'illustrated pathological treatises' as a genre that he tracks in his work, *Visualizing Disease*, from the early modern period to the nineteenth century. However, the work is inconsistent in the use of the term genre, and I do not therefore include it as part of my consideration of genre in this paper: Domenico Bertoloni Meli, *Visualizing Disease: The Art and History of Pathological Illustrations* (University of Chicago Press, Chicago, IL; London, UK, 2017).
- ²⁶ As Jonathan Topham puts it: 'the multi-directional and actively contested nature of scientific communication by print'. Jonathan R. Topham, 'Scientific Publishing and the Reading of Science in Nineteenth-Century Britain: A Historiographical Survey and Guide to Sources', *Studies in the History and Philosophy of Science Part A*, **31**, 559–612 (2000), p. 562.
- Robert Darnton, 'What is the History of Books?', in *The Kiss of Lamourette: Reflections in Cultural History*, pp. 107-135 (W. W. Norton & Co., New York, NY; London, UK, 1990).
 In comparing the various editions of Baillie's *Morbid Anatomy*, I use the freely available digital humanities
- ²⁸ In comparing the various editions of Baillie's *Morbid Anatomy*, I use the freely available digital humanities software Juxtacommons alongside a translation of sections of Sömmering's work that was kindly completed by Ian Avery. My thanks to him and to Caroline Avery.
- ²⁹ Hospitals were not a major source of cadavers in the eighteenth century as they became in the nineteenth. Typically, eighteenth-century hospitals focused their resources on curable patients, which meant that most who entered the hospital did not die there. Those who did die might be subject to post-mortem examination so their case and post-mortem findings would be known—and Baillie carried out such dissections—but, as the catalogues of the Hunter brothers and Baillie attest, this was not a significant source of anatomical preparations for the Great Windmill Street school as cases are few and far between.
- ³⁰ On teaching at Hunter's school see: T. Gelfand, 'The "Paris Manner" of Dissection: Student Anatomical Dissection in Early Eighteenth-Century Paris', *Bulletin of the History of Medicine*, **46**, 99-130 (1972); Cunningham, *op. cit.* (note 21), 135-139; Guerrini, *op. cit.* (note 19); Berkowitz, *op. cit.* (note 20). For the wider context of eighteenth-century anatomy teaching see: Susan C. Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in Eighteenth-Century London* (Cambridge University Press, Cambridge, 1996).
- ³¹ It is likely that the Hunters were key in the fostering of the trade. Ruth Richardson, *Death, Dissection and the Destitute* (Routledge & Kegan Paul, London, 1987); Wendy Moore, *The knife man: the extraordinary life and times of John Hunter father of modern surgery* (Bantam Press, London, 2005), pp. 67-100.
- ³² Baillie, *op. cit.* (note 11), pp. 350-352. On singularities, or 'monsters' in this period see: Palmira Fontes da Costa, 'The Making of Extraordinary Facts: Authentication of Singularities of Nature at the Royal Society of London in the First Half of the Eighteenth Century', *Studies in the History and Philosophy of Science Part A*, **33**, 265-288 (2002).
- ³³ In the catalogues of both Hunter (Catalogue of Anatomical Preparations, 1770–1783, MR19, Glasgow University Library Special Collections, Glasgow) and Baillie (A Catalogue of the Preparations of Anatomical and Pathological Specimens in the Museum of the Royal College of Physicians, London [catalogue of Matthew Baillie collection transferred to the Royal College of Surgeons], c.1790–1867, RCS-MUS/7/25/1, Royal College of Surgeons of England Library, London), some preparations are accompanied by case histories which suggest other alternatives, such as having personally encountered the individual whilst alive, or purposefully seeking interesting cases out after their death. However, that this occurs most frequently for preparations donated to the school by third parties shows that it was not a regular practice of the school.
- ³⁴ In the preface Baillie explained that: 'My situation has given me more than the ordinary opportunities of examining morbid structure. Dr. Hunter's collection contains a very large number of preparations exhibiting morbid appearances, which I can have recourse to at any time for examination. Being physician to a large hospital, and engaged in teaching anatomy, I have also very frequent opportunities of examining diseases in dead bodies'. Baillie, *op. cit.* (note 1), pp. viii-ix.
- ³⁵ Baillie, *op. cit.* (note 11), p. 72.
- ³⁶ Baillie, *op. cit.* (note 11), pp. 72-78.

³⁷ Baillie, op. cit. (note 1), ii-iv.

³⁸ This approach was theoretically similar to how William Hunter conceptualised the relation between anatomy and physiology. In his view, anatomy was the only sound basis for physiological inquiry, which had been characterised by groundless theorising, see: Cunningham, *op. cit.* (note 21), p. 139; William Hunter, *Two Introductory Lectures, Delivered by Dr. William Hunter, to his Last Course of Anatomical Lectures, at his Theatre in Windmill Street* (J. Johnson, London, 1784), pp. 95-98.

³⁹ Baillie, *op. cit.* (note 1), pp. viii-ix.

⁴⁰ Matthew Baillie in: William Hunter, An Anatomical Description of the Human Gravid Uterus, and Its Contents, vii-ix (J. Johnson and G. Nicol, London, 1794), p. viii. Baillie also described the publication as rendering the Gravid Uterus more 'complete', a description he would later apply to his own illustrations of morbid anatomy: Matthew Baillie, A Series of Engravings, Accompanied with Explanations, which are Intended to Illustrate The Morbid Anatomy of Some of the Most Important Parts of the Human Body (W. Bulmer and Co, J. Johnson, and G. Nicol, London, 1799–1803).

⁴¹ Baillie in: Hunter, op. cit. (note 40), p. ix.

⁴² It seems likely that the agreement to publish both works was made at the same time by the two publishers. On Johnson see: Carol Hall, 'Johnson, Joseph (1738-1809)', *Oxford Dictionary of National Biography* [*DNB*], May 2013, https://o-doi-org.wam.leeds.ac.uk/10.1093/ref:odnb/14904, (accessed 20 January 2019). (Online journal). On Nicol see: Vivienne W. Painting, 'Nicol, George (1740?-1828)', *DNB*, January 2008, https://o-doi-org.wam.leeds.ac.uk/10.1093/ref:odnb/40486, (accessed 20 January 2019). (Online journal).

⁴³ Text-only works of anatomy were common in this period as they were cheap compared to illustrated anatomy works. Baillie's book was priced at six shillings, for example. *Critical Review, op. cit.* (note 3), p. 375.

⁴⁴ More specifically Baillie's work proposed 'to give no cases; but simply an account of the morbid changes of structure which take place in the thoracic and abdominal viscera, in the organs of generation in both sexes, and in the brain'. Baillie, *op. cit.* (note 1), p. i, viii; Baillie in: Hunter, *op. cit.* (note 40), p. vii.

⁴⁵ Baillie, op. cit. (note 1), p. viii.

⁴⁶ Baillie, op. cit. (note 1), p. xiii. Hunter, op. cit. (note 40), pp. xi-xii.

⁴⁷ A Catalogue of the Preparations ... [Baillie]', op. cit. (note 33).

⁴⁸ Baillie, *op. cit.* (note 1), p. 3.

⁴⁹ Baillie, op. cit. (note 1), p. ix.

⁵⁰ Hunter, *op. cit.* (note 40), pp. 1-2. The illustrations represented individual dissections of the human gravid uterus and can thus be understood as preservations in the manner of preparations. Indeed, several preparations and plaster casts were made from these same dissections. See: Stuart W. MacDonald, 'William Hunter's Anatomical and Pathological Specimens' in *William Hunter's World: The Art and Science of Eighteenth-Century Collecting* (eds E. Geoffrey Hancock, Nick Pearce, and Mungo Campbell), pp. 97-111 (Ashgate, Farnham, 2015).

⁵¹ Hunter, op. cit. (note 38), pp. 94-97. Cunningham, op. cit. (note 21), p. 139.

⁵² Baillie, *op. cit.* (note 1), p. 3.

⁵³ Hunter, op. cit. (note 40), p. 5 emphasis mine.

⁵⁴ Baillie, *op. cit.* (note 1), pp. 5-6.

⁵⁵ Cunningham, *op. cit.* (note 21), pp. 223-293.

⁵⁶ Hunter, *op. cit.* (note 40), pp. 32-34.

⁵⁷ All of the periodicals in question reviewed a broad range of books, including medical publications, with the medical reviews likely undertaken by medical practitioners. In doing so, editors were fulfilling a broad demand for such reviews from medical and lay audiences alike. See: Roy Porter, 'Lay Medical Knowledge in the Eighteenth Century: The Evidence of the *Gentleman's Magazine'*, *Medical History*, **29**, 138-168 (1985). Samuel Thomas von Sömmering, *Matthew Baillie* ... *Anatomie des krankhaften Baues von einigen der wichtigsten Theile im menschlichen Körper* (In der Bossischen Buchhandlung, Berlin, 1794), translation by Ian Avery. Domenico Bertoloni Meli has compared the references to illustrations in Sömmering's translation to Baillie's later engravings demonstrating morbid anatomy: Domenico Bertoloni Meli, 'The Texture of Rare and Common Lesions in Soemmering and Baillie', *Journal of the History of Medicine and Allied Sciences*, **74**, 391-415 (2019).

⁵⁸ Most medical books in this period did not have a second edition. On the eighteenth-century book trade see: James Raven, *The Business of Books: Booksellers and the English Book Trade 1450-1850* (Yale University Press, New Haven, CT; London, UK, 2007). For an example of a medical publisher working in the period see: William Zachs, *The First John Murray and the Late Eighteenth-Century London Book Trade* (Oxford University Press, Oxford, 1998).

⁵⁹ A. R., 'Baillie *on the morbid Anatomy of the human Body*', *Analytical review: or, History of literature* (ed. Thomas Christie), pp. 397-405 (J. Johnson, London, 1793), vol. 17, p. 397.

- ⁶⁰ Ai, 'ART. VII. *The morbid Anatomy of some of the most important Parts of the Human Body*', *Monthly Review, or Literary Journal* (ed. Ralph Griffiths), pp. 405-408 (Hurst, Robinson, and Co., London, 1794), vol. 14, p. 406.
- ⁶¹ A.R., *op. cit.* (note 59), p. 404. Similarly, *Critical Review* stated: 'the whole work deserves the attentive perusal of every medical student', *Critical Review*, *op. cit.* (note 3), p. 375.
- ⁶² A. R., op. cit. (note 59), p. 404.
- ⁶³ 'ART. II. *The Morbid Anatomy of some of the most important Parts of the Human Body*', *British Critic* (ed. Robert Nares), pp. 371-373 (C. & J. Rivington, London, 1793), vol. 2, p. 373. Also: 'The Morbid Anatomy of Some of the Most Important Parts of the Human Body', *Literary Magazine and British Review*, pp. 64-66 (C. Forster, London, 1794), vol. 12, p. 66.
- ⁶⁴ A. R., op. cit. (note 59), p. 397.
- ⁶⁵ Sömmering also spent five months in Edinburgh with Alexander Monro *secundus*. See: 'Soemmering, Samuel Thomas von', *The Dictionary of Eighteenth-Century German Philosophers* (eds Heiner F. Kuehn and Manfred Klemme), 2010, http://www.oxfordreference.com/view/10.1093/acref/9780199797097.001.0001/acref-9780199797097-e-0524, (accessed 21 January 2019). (Online dictionary).
- ⁶⁶ Sömmering, op cit. (note 57), pp. xi-xii.
- ⁶⁷ Sömmering, op cit. (note 57), p. xvi.
- ⁶⁸ Sömmering, op cit. (note 57), pp. xvii-xviii.
- ⁶⁹ On the illustrations Sömmering referenced see: Bertoloni Meli, op. cit. (note 57).
- ⁷⁰ Sömmering, *op cit.* (note 57), pp. 1-9.
- ⁷¹ Matthew Baillie, *The Morbid Anatomy of Some of the Most Important Parts of the Human Body,* (J. Johnson and G. Nicol, London, 1797), 2nd edn, pp. xiii-xiv.
- ⁷² Baillie, *op. cit.* (note 71), p. xiv.
- ⁷³ Sömmering, *op cit.* (note 57), pp. 2.
- ⁷⁴ Baillie, op. cit. (note 1), p. 3. Sömmering, op cit. (note 57), p. 2.
- ⁷⁵ Baillie, *op. cit.* (note 71), p. 3.
- ⁷⁶ Baillie, *op. cit.* (note 11), pp. 91-102.
- ⁷⁷ Sömmering, *op cit.* (note 57), p. 9. Baillie, *op. cit.* (note 71), p. 13.
- ⁷⁸ Baillie, *op. cit.* (note 1), pp. xiii, 8-11. Baillie, *op. cit.* (note 71), p. 11.
- ⁷⁹ Baillie, *op. cit.* (note 1), pp. 10-11. Baillie, *op. cit.* (note 71), p. 13.
- 80 British Critic, op. cit. (note 63), p. 373; Literary Magazine, op. cit. (note 63), p. 66.
- 81 Critical Review, op. cit. (note 3), p. 375.
- 82 Baillie, op. cit. (note 71), pp. xiv-xv.
- 83 Baillie, op. cit. (note 71), p. xvi.
- ⁸⁴ Baillie was also at pains to point out that he had omitted many symptoms on the basis that their relation to diseased appearances was insufficiently known for a variety of reasons. Baillie, *op. cit.* (note 71), pp. xvi-xvii. ⁸⁵ Baillie, *op. cit.* (note 71), p. xvii.
- 86 Baillie, op. cit. (note 1), p. 56.
- ⁸⁷ Thomas Yelloly, *Dissertatio medical inauguralis de cynanche tracheali* (Adamus Neill cum Sociis, Edinburgh, 1796), p. 12 translation mine; William Davidson, *Observations, Anatomical, Physiological and Pathological, on the Pulmonary System* (S. Low, London, 1795), p. 102.
- ⁸⁸ Both terms were used separately prior to Baillie's work. For example, 'pulpy' describes hydatids in: George Motherby, *A New Medical Dictionary; or, General Repository of Physic* (J. Johnson, G. G. J. and J. Robinson, A. Hamilton, J. Murray, London, 1791), 3rd edn, p. 420. 'Croup' was in common usage.
- ⁸⁹ Disney Alexander, A Treatise on the Nature and Cure of the Cynanche Trachealis Commonly Called the Croup (J. Brook, Huddersfield, 1794), p. 39; William Nesbitt, The Clinical Guide; or, a Concise View of the Leading Facts, on the History, Nature, and Cure of Diseases; to which is Subjoined, a Practical Pharmacopoa (J. Watson, J. Johnson, Edinburgh and London, 1796), 2nd edn, p. 16. Referenced in: Henry Rumsey, 'An Account of the Croup, as it appeared in the Town and Neighbourhood of Chesham, Buckinghamshire, in the Years 1793 and 1794', Trans. for a Society for the Improvement of Medical and Chirurgical Knowledge, pp. 25-62, 3 vols (J. Johnson, London, 1800), vol. 2, p. 32.
- ⁹⁰ James Johnstone, *Medical Essays and Observations, with Disquisitions Relating to the Nervous System* (J. Agg, Evesham, 1795), pp. 69-70 emphasis his. Other authors that viewed Baillie's work in this manner were: Davidson, *op. cit.* (note 75), pp. 120-121; John Robert Thornton, *Medical Extracts: on the Nature of Health, with Practical Observations*, 4 vols (J. Johnson, London, 1797), vol. 4, p. xiii; William Saunders, *A Treatise on the Structure, Economy, and Diseases of the Liver* (J. Phillips, London, 1795), 2nd ed, p. 211; Thomas Denman, *An Introduction to the Practice of Midwifery*, 2 vols (J. Johnson, London, 1794-1795) vol. 1, p. 133 described *Morbid Anatomy* as 'very excellent'.
- ⁹¹ Bertoloni Meli suggests that in the early nineteenth century there was a British group influenced by Baillie's methods. Bertoloni Meli, *op cit.* (note 25), pp. 110, 158, 161.

⁹² Richard T. Bellis, *Making Anatomical Knowledge about Disease in Late Georgian Britain, from Dissection Table to the Printed Book and Beyond: Matthew Baillie's* Morbid Anatomy *and Its Accompanying Engravings* (University of Leeds, Leeds, 2019). (PhD Thesis)

⁹³ Franco Crainz, 'The Editions and Translations of Dr. Matthew Baillie's *Morbid Anatomy*', *Medical History*, **26**, 443-452 (1982); Bellis, op. cit. (note 92); Bertoloni Meli, *op. cit.* (note 25), pp. 81-106.

⁹⁴ For example: Caroline Hannaway and Ann La Berge, 'Paris Medicine: Perspectives Past and Present', *Constructing Paris Medicine* (eds Caroline Hannaway and Ann La Berge), pp. 1-69 (Editions Rodopi B. V., Amsterdam, 1998).

⁹⁵ My thanks to Emily Herring for help with translation. Othmar Keel, 'Was Anatomical and Tissue Pathology a Product of the Paris Clinical School or Not?', *Constructing Paris Medicine* (eds Caroline Hannaway and Ann La Berge), pp. 117-183 (Editions Rodopi B. V., Amsterdam, 1998), p. 123.