

Bone

This chapter examines how asylum doctors responded to allegations of harm and abuse within their institutions. Such allegations arose from a number of cases in the 1870s in which patients were found to have sustained multiple fractures, usually of the ribs. Many of these patients were suffering from general paralysis, with bone fracture seemingly providing further evidence of the inherently ‘weaker’ state of general paralytic patient’s bodily fabric. At a time when death registration was becoming more carefully regulated and suspicious deaths closely investigated, asylums and their staff—including the West Riding—found themselves under scrutiny for these fracture deaths. Although the blame for fractures was initially pinned on asylum attendants—judged by much of the popular press, and indeed some doctors, to be an untrustworthy and callous body of workers—other explanations soon surfaced. Many of these explanations pointed to the mental and physical symptoms of general paralysis: impaired muscular sensibility leading to falls, mental excitement causing reckless running around the wards, and grandiose delusions precipitating fights with other patients. In the 1890s, both in the laboratory of the West Riding and at other asylums, attempts were made to quantify the strength of general paralytic patient’s bones during postmortem investigation. Pathologising the patient’s body in this way had a number of practical consequences that impacted upon both medical officers and attendants, but by the turn of the century it was becoming less certain that pathological investigation was a useful, or indeed appropriate, way to respond to allegations of institutional violence.¹

A CULTURE OF VIOLENCE?

In the 1870s several British asylums came under close scrutiny in the popular and medical press. A number of patient deaths were reported that had a disturbing feature in common: broken ribs. The most alarming was the case of Rees Price, an elderly blind patient admitted to Carmarthen Asylum who had died shortly after admission. A postmortem found eight broken ribs and it was alleged that Price had received no proper medical examination upon admission, nor any special attention when he began to exhibit breathing difficulties.² One of the responses to these revelations was a letter to the *Pall Mall Gazette* from novelist Charles Reade. Reade's 1863 novel *Hard Cash* included a character who found himself committed to a private asylum where he was placed at the mercy of sadistic asylum attendants. Reade claimed that the research he had undertaken when writing this book cast light on the circumstances surrounding cases of rib fracture:

The ex-keepers were all agreed in this that the keepers know how to break a patient's bones without bruising the skin; and that the doctors have been duped again and again by them. To put it in my own words, the bent knees, big bluntish bones, and clothed, can be applied with terrible force, yet not leave their mark upon the skin of the victim. The refractory patient is thrown down and the keeper walks up and down him on his knees, and even jumps on his body, knees downwards, until he is completely cowed. Should a bone or two be broken in this process, it does not much matter to the keeper; a lunatic complaining of internal injury is not listened to. He is a being so full of illusions that nobody believes in any unseen injury he prates about.³

While there was more than a hint of self-promotion in Reade's correspondence to the *Gazette*, letters from former asylum patients backed up his stories of attendants "kneeling" on patients.⁴ Thomas Laqueur, in 'Bodies, Details, and the Humanitarian Narrative,' identifies "an extraordinary number of hitherto untold stories of human suffering" (with particular focus on the poor) being disseminated in the late nineteenth century. These appeared in Blue Books of parliamentary inquiries and filtered into the mainstream press.⁵ The process of inquiry was, Laqueur argues, tied to sympathy for strangers based on common experiences of the body: vivid accounts of injuries (such as multiple rib fractures) were powerful calls for ameliorative action and institutional reform. Stories about broken ribs in asylums were coincident with concerns for other

forms of violence; *The Times* showed a particular interest in “kicking assaults” during the 1870s, for example.⁶ Details of broken ribs in asylums were printed in both popular newspapers and the medical press, including a particularly damning piece in the *BMJ* that listed seven such cases and claimed that “rib-crushing” was just one of many methods by which asylum patients were “hurried out of existence.”⁷ *The Lancet* also printed attention-grabbing news items and, in discussing the death of a patient at Lancaster Asylum, proclaimed it “quite impossible that such injuries could be inflicted by anything but direct violence.”⁸

The blame for injuries was first pinned on asylum attendants, whose custodial role within a system of nonrestraint was viewed with some suspicion. That asylum attendants were a body of workers peculiarly unsuited to their vocation—uneducated, intemperate, and untrustworthy—was a long-standing preconception. By his own admission, Scottish alienist Thomas Smith Clouston had been suspicious when one of his nurses said that she had taken the position due to a wish “to do good to her fellow creatures.”⁹ Such altruistic motives were rare, it seemed, and enthralling asylum workers for an often unpleasant vocation was a difficult task, with many moving on to other jobs after a short period. High staff turnover was often a reflection of an unrewarding and gruelling vocation. John Sheehan, examining male West Riding attendants between 1852 and 1889, found that 51% left within a year of appointment, and suggests that a degree of “petty tyranny” on the part of attendants may have been a response to their surveillance by more senior asylum staff.¹⁰ In contrast, John Walton emphasises the favourable pay and inclusion of board and lodging as key perks of the job for Lancaster Asylum attendants, and David Wright has demonstrated that the occupational and geographical mobility of asylum attendants may have been motivated by a desire to build up varied work experience, rather than simply a result of repeated dismissal or boredom.¹¹ Dismissal figures and other official records should also be viewed with caution; Neil Brimblecombe notes that in some cases nurses or attendants were allowed to ‘resign’ in order to avoid the disgrace of being ‘dismissed.’¹² Regardless of the truth behind dismissal figures, in many contemporary accounts the role of the asylum attendant was often that of villain. In 1889, the *Ipswich Journal* reported a familiar tale of an attendant charged with theft from fellow workers, taking a gold ring from one and several books and a pair of cricket gloves from another.¹³ The *BMJ* referred to a case involving an attendant who had given a patient a weapon before “inciting” him to kill and rob two other inmates, also helping to arrange

the patient's escape.¹⁴ In cases in which attendants found themselves accused of abuse or misconduct, they could be presented as just as unbalanced as their charges (and indeed it was not unknown for attendants to cease work on account of developing nervous illnesses, sometimes finding themselves transformed into patients).

The good conduct of attendants was crucial considering that they were responsible for the safety of patients who were often at increased risk of injury, whether due to self-harm, impaired sensations, or altercations with other excitable patients. Attendants were responsible for patient welfare and this meant not only the avoidance of direct violence, but careful supervision to avoid any accidents. In the late nineteenth century, as the dangers of modern industrial life intersected with naturalistic thinking, "people thought that accidents took place when someone who should have been able to control events did things wrong."¹⁵ There was no such thing as a 'pure' accident, even if this was how asylum staff or boards referred to incidents; in 1880 five cases of fracture at the West Riding were described as "purely accidental," with the exception of a patient who was "wilfully pushed down by another patient when in the Airing Court."¹⁶ Accidents are not as random as their definition might suggest. They tend to occur towards the lower end of the socio-economic scale, and—just as occupational diseases or deficiency diseases such as rickets "had a strong tendency to social class specificity in their choice of victims"—so too could the broken ribs of asylum patients be viewed as an "epidemic by instalment" affecting a particular social group.¹⁷

As broken rib cases continued to come to light, many newspapers expressed scepticism that this 'epidemic' was the result of anything other than sadistic conduct on the part of attendants. In 1887, *The North-Eastern Daily Gazette* mocked a coroner's court jury who had returned a verdict of paralytic stroke for a Colney Hatch patient ("whether with fist or stick or poker was not stated, but I believe paralysis in its worst forms occasionally avails itself of one of these instruments"), and suggested that all cases of broken ribs in asylums should incur an automatic manslaughter charge.¹⁸ Other commentators suggested that, if attendants were not personally inclined to be violent towards their charges, they were working within a system that made such violence inevitable. William Lauder Lindsay, of Murray Royal Institution for the Insane in Perth, Scotland, blamed the broken rib phenomenon on the system of nonrestraint, commenting that "if England *is* the country of nonrestraint, it is also the country of broken ribs among the insane!"¹⁹ The nonrestraint movement,

most closely associated with the Quaker-run York Retreat, argued for the discontinuance or minimal use of manual restraint in asylums, instead relying on cultivating better relationships between staff and patients through various activities and the maintenance of a ‘family’ atmosphere. Lindsay argued that the disappearance of mechanical means of restraint over the course of the nineteenth century had in fact *increased* the potential for injury as attendants struggled to subdue patients single-handedly or to manually convey them to seclusion in an excited state. Florence Hale Abbot, writing in *The American Journal of Nursing* in 1903, also noted that in many cases being manually restrained by an attendant made a patient more excitable than they might be when simple mechanical restraint was used, thus increasing the risk of injury.²⁰

The impact of the nonrestraint system on the incidence of injury was debatable, but there were undoubtedly some cases in which the violent actions of attendants were a direct cause of patient injury or death. The medical director’s journals at the West Riding suggest that such instances were dealt with in a serious manner. In 1893, William Bevan Lewis expressed his hope that the prosecution of an attendant for assault would establish “a healthier feeling” amongst those staff who rigidly followed the regulations and attended to their patients with care.²¹ This concern for the conduct of attendants and care of patients was evident in previous Superintendent James Crichton-Browne’s practice of holding leaving interviews with patients.²² He further requested that every patient, once discharged, “write to [him] one week after their return home” detailing their experiences.²³ This complemented the investigations of the Lunacy Commissioners and the Asylum’s Committee of Visitors, both of whom were expected to speak to patients about their treatment during their visits. Such checks could prove difficult in practice, however—especially in large asylums—and criticisms of the asylum system rumbled on in the press. Alienists felt compelled to respond to each new charge, so that “by the 1860s and 70s there was a siege mentality developing in some quarters, as asylum professionals sought to rescue the reputation of their supposedly violent staff, and the system itself.”²⁴

If not all cases of fracture were the result of calculated aggression by attendants, there was still scope for an explanation that highlighted violence. The fatal potential of interpatient conflict was starkly demonstrated at the West Riding in 1889 when a patient was repeatedly hit on the head with a kneeling board (used when cleaning floors) by a fellow patient and died.²⁵ Another patient, 55-year-old Richard P., who had been placed in

the refractory ward at admission, came into conflict “with some of the patients ... [who] pushed him and hit at him.”²⁶ Not long after his move to a regular ward, he died and was found at postmortem to have four injuries to his ribs. At inquest, the role of interpatient conflict in his death was made clear:

A patient named [John B.] stated on oath before the Coroner that he had seen [Edward A.] strike & kick [Richard] ... and that [Richard] was knocked off his seat by [Edward] and that he (John B.) told [Edward] to give over striking [Richard] ... [Edward] himself admits having knocked [Richard] down and kicked him.²⁷

More damningly, culprit Edward A. had been given the task of looking out for Richard upon his arrival on the ward, as he was “considered a quiet man & not likely to injure any patient without provocation.”²⁸ This practice of pairing up a new patient with an existing resident was a means of assimilating patients into asylum wards, but also undoubtedly a useful way of managing the large numbers of patients for whom attendants could find themselves responsible. Asylum staff, as well as patients, found themselves at the mercy of those they tended: West Riding Medical Officer Ernest Birt reportedly had a narrow escape in 1884 when a patient attempted to stab him in the neck.²⁹ Interpersonal violence was a matter affecting all levels of residents and staff in the asylum, with incidents taking place between patients and staff, between patients, and even between staff members.³⁰ As well as direct violence by attendants or other patients, debates in the medical press placed the blame for patient injuries on superintendents for not surveying their staff properly, and on the Commissioners in Lunacy for appointing superintendents too busy to run their asylums satisfactorily, as well as their own tardiness in investigating deaths. In a case at Hanwell Asylum, for example, there was a gap of almost one month between the patient’s death and the Commissioners’ visit—but this was not an uncommon delay considering the small size of the inspectorate and the tasks allotted to them.³¹

The question of who was ultimately at fault for patient’s broken ribs did not yield a clear answer. At the heart of the issue was a more philosophical problem about who was to blame for the deaths of patients who were unable to look after themselves. Although fractures were also observed in general hospitals, it was noted that patients there were generally able to avoid accidents and to describe properly any incidents that did occur, and

would in any case be turned out in the event that they became unruly.³² The excitement, delusions, or physical infirmities of asylum patients, on the other hand, could account for a wide range of events, with apparently inexplicable injuries rationalised by attributing them to dysfunctional behaviour. Though an accident traditionally implied no human agency, changing understandings of the accident blurred the boundaries between accident and intentional act. ‘Accidents’ coalesced to form a body of cases that were explained in the press as events neatly attributable to an inefficient and immoral asylum system. The broken rib scandal occurred at a time when “accidents went public,” both in terms of the arena in which they occurred and in terms of rising public concern for safety.³³ Both Roger Cooter and Jamie Bronstein have emphasised the penchant of the Victorian press for the large-scale accident such as the mining disaster.³⁴ Generally “it was the somewhat atypical ‘single event catastrophe’ that captured newspaper attention,” or shock epidemic diseases like cholera.³⁵ However, in the case of factories and workshops, individual cases could also be crucial in raising public awareness of the need for preventative measures such as safety railings or breathing respirators.

Stories of individual asylum deaths like Rees Price’s carried within them a distinct thread of humanitarian concern and tapped into contemporary fears about the medical profession. The broken rib scandal was reminiscent, for example, of fears surrounding “chloroform deaths” (patients dying whilst under sedation) in the 1840s and 1850s.³⁶ Whilst it was not until 1885 that the *BMJ* felt it appropriate to comment on factory accidents—and even then in a manner which suggested such things were private matters—it published a lengthy list of stories from the 1870s that dealt with the ‘asylum problem.’³⁷ Yet official statistics suggested that broken ribs in asylums were not as common as many supposed: the Blue Book of 1896 recorded 7182 deaths in English and Welsh asylums that year, 11 of which were a result of fractures or dislocations.³⁸ Some speculated that incidences of fracture were less common in asylums due to extra precautionary measures, whilst others cited increased inspection as the reason for deaths coming to public attention.³⁹ The recording of accidental injury was indeed increasing at this time and just as we may read slightly sensationalist accounts of broken ribs as evidence of a widespread phenomenon, we may also read the reports as representative of a few isolated cases—as Edward Baines observed of the cotton industry in the 1830s, where singular cases of injury led to condemnation of the industry as a whole.⁴⁰ Leonard Smith has noted that the “mythology of cruelty” emphasised by lunacy reformers

and the nonrestraint movement has continued to affect perceptions of nineteenth-century psychiatry up to the present day.⁴¹ Whilst instances of attendant-on-patient violence undoubtedly occurred, we should be cautious of assuming that they were widespread or that they were unquestioningly accepted by asylum staff. In seeking to understand contemporary perceptions of the body in the asylum, then, it is essential to consider the full range of explanations that were offered for broken bones and the ways in which the phenomenon was investigated.

THE ROLE OF THE INQUEST

In solving the mystery of broken ribs in the asylum, discussion centred upon the bodily evidence that was ‘surfaced’ at postmortem examination and coroner’s inquest. After the 1836 Births and Deaths Registration Act it became a legal requirement to report all deaths and make any suspicious circumstances known to the coroner. In the case of asylums, the 1862 Lunatics Amendment Act required all deaths that occurred within the institutions to be reported to both the local coroner and the Commissioners in Lunacy. At the West Riding, and elsewhere, it was standard practice to hold an inquest not only in cases of suspicious deaths, but those that occurred a few days after admission. The number of coroner’s inquests into deaths of West Riding patients was apparently inflated by the latter group, as many patients were admitted in a serious and often helpless state. James Crichton-Browne drew attention to the hopeless character of many admissions in 1875: “The condition of the patients admitted into the Asylum during the last quarter, has been so deplorable as to call for special comment. Many have been brought here in an actually dying state, and many far advanced in incurable disease.”⁴² Crichton-Browne was critical of the local population’s tendency not to seek help until it was too late, and suggested that such inaction led to the Asylum being filled with incurable and chronic cases requiring significant levels of care—if they survived long enough after admission.

There are two coroner’s warrant books spanning the nineteenth century at the West Riding. The first, covering the years 1834–1879, contains 118 cases, the second (1879–1919), 266.⁴³ Of the 384 inquests held between 1834 and 1919, 44 mention fracture as an element of the verdict, usually of the leg bones, ribs, or skull. Rib fractures accounted for 19 of the 44 fracture cases, including that of 51-year-old Thomas E. who was admitted to the Asylum on 13 October 1864. Thomas was very feeble and unable to

stand or walk on his own, but was placed in a chair in the dayroom whenever possible. On 4 December he fell from this chair, incurred a bruised hip, and was returned to bed. On 7 December the casebook recorded:

It appears this patient was lifted out of bed & placed on the night stool by [the night attendant] in order to change his shirt which was wet. The attend[ant] states that finding he had not “sufficient sheets” he left this patient on the night stool & went to the store at the other end of the ward for them, being absent about 5 minutes. On his return [he] found the patient on the floor, having fallen off the commode, close to & probably against the bedstead. He changed the sheets, lifted [the patient] into bed & left him as he thought none the worse for his fall ... At 5.30am the House Surgeon (W J Lancaster) was called to see this patient in consequence of a great change for the worse.... A broken rib was suspected as the cause, but at first was not detected (no report made at this time of any fall) but at 9:30am fractures of the 4th & 5th ribs on right side were discovered on again examining this patient and a slight though recent bruise over the seat of fracture ... [T]his patient gradually sank and Died Dec. 8th 1884.⁴⁴

Postmortem examination confirmed the fractures as suspected, as well as a “small wound” of one lung which had collapsed. The coroner returned a verdict of “General Paralysis accelerated by fracture of the ribs.”⁴⁵ This term, ‘accelerated,’ appeared on just less than half of the 44 fracture cases subject to an inquest at the West Riding. Laqueur addresses the use of this phrase in the context of occupational illness, and suggests that it was a useful means of absolving employers of responsibility.⁴⁶ Certainly its use in the case of Thomas E. could be seen to remove some culpability from the night attendant, suggesting that—though he had been negligent in leaving the patient alone for five minutes—he could not have foreseen the severity of the injuries that had resulted from a minor fall. But ‘accelerating causes,’ as well as being a potentially useful semantic tool, also reflected understandings of death as the result of a combination of factors. An 1845 circular to coroners on correct death registration made clear that all elements pertaining to a case were to be recorded, noting that “It often happens that a complication of causes conspires to produce death; for instance, a person ‘falls—on a knife.’”⁴⁷ Death was rarely an event with a single causative factor. “Fracture of the skull,” for example, was one of the examples given on a list of ‘Imperfect Returns of the Causes of Violent Death’ as it was an “exclusively medical view” that neglected to mention

intent—whether the case was one of accident, murder, or suicide.⁴⁸ In cases like Thomas E.’s the attribution of death to general paralysis as the primary factor, and broken ribs as the ‘accelerant,’ seems rather disingenuous. Yet it reflects the sense of inevitability surrounding general paralysis: that it was a desperate and incurable disease, and that the patient could die as a result of any number of complications that came with it. In the context of late nineteenth-century psychiatry, the ‘accelerating’ physiological cause also parallels the ‘exciting’ psychological cause so often found in asylum case records. Joseph B., for example, diagnosed with general paralysis upon admission to the Asylum in 1885, was assigned a predisposing cause of “heredity” and an exciting cause of “alcoholic excess,” a combination that can be seen in several other West Riding records.⁴⁹ Predisposing and exciting causes reflected the fluidity of psychiatric diagnosis at this time. General paralysis, in particular, had so many mental and physical manifestations—occurring at different points in the course of the disease—that it was not unusual for a diagnosis to be made some time after admission, and sometimes not with certainty until after death.

It was doubly difficult to account for deaths in an asylum environment where simple cause-effect relationships were complicated by the patient’s behaviour and subjective sensations, as well as the presumed unreliability of fellow patients as witnesses. Although some patients—such as John B., above—testified at inquests, many were not considered appropriate witnesses. An 1882 case against a Gloucester County Asylum attendant, for example, did not receive the testimony of patients who claimed to have witnessed the defendant using violence as “[t]he coroner did not consider that the patients were proper witnesses.”⁵⁰ This was a period when so-called ‘expert witnessing’ was increasingly employed; the 1836 Medical Witnesses Act provided for coroners to pay one medical witness per inquest who was to be selected “for their supposed capacity to provide evidence in relation to the specific circumstances of a specific death.”⁵¹ Ideally this witness would have been familiar with the patient prior to death, and in accordance with this the asylum surgeon often gave evidence, along with those who had attended a patient. The appointment of a medical witness was often as much “a choice between versions” of a death than the presentation of any objective fact.⁵² At the inquest of Henry D., who was discovered to have seven fractured ribs at postmortem, the evidence of five people was recorded: the prison warder and the master of the workhouse who had both seen him before his committal to the Asylum, the daytime asylum attendant, the asylum surgeon, and the night asylum attendant. An

explanation for Henry D.'s injuries had been volunteered to the prison warden by a fellow prisoner who "admit[ted] having struck him with a stick when he disturbed the dormitory and messed the floor, & ... [who] had seen others strike [Henry D.]. He also mention[ed] a heavy fall which he had one night on[to] the floor when standing on his bed."⁵³ Nevertheless, a verdict of pleurisy caused by fractured ribs was returned, noting "when where or by what means the ribs were fractured there is no evidence to shew [*sic*]."⁵⁴

Not all cases of fracture resulting in, or occurring close to the event of, death became the subject of coroner's inquest. In 1891 West Riding patient Zelia H. was found to have five broken ribs at postmortem. No inquest was held, however, and after corresponding with the Commissioners it was decided that her injuries "were not the result of carelessness."⁵⁵ Similarly, Thomas T. was found to have three broken ribs at postmortem, yet the coroner attributed his death to a combination of bronchitis, pleurisy, and erysipelas of the arm: "As to the fractured ribs it was evident they were not of quite recent date and it was thought probable that they had occurred by one or more falls, which could hardly be prevented."⁵⁶ This tendency to dismiss some fractures as contributory causes of death according to their circumstances was also evident in the case of Widdop P., a general paralytic patient who died 11 days after admission:

A broken rib was found after death and an enquiry held accordingly. From the probable date of the fracture (it was but quite recent) and from the fact that previous to being brought to the Asylum, the patient had fallen head-long down stairs, it was decided by the Jury that the accident had occurred to the patient previous to admission, the Attendants being exonerated from all blame or suspicions.⁵⁷

In ascertaining the cause of death, the coroner was obliged to look not only at the evidence of the physical body, but also the circumstances surrounding or leading up to death. This was an exercise that could prove complicated in the asylum context, especially where a patient's excitable or violent behaviour was often involved in accidents; however, patients' own reports of incidents were considered unreliable.

The cases described so far illustrate the difficulty in relying on coroners' warrants as master narratives of death, but also the complexities of fracture deaths that—particularly in cases of general paralysis—proved difficult to account for with any degree of certainty. When the registration of cause of

death began in 1838, accidents were typically grouped together with other ‘violent’ deaths such as drowning, but as the century progressed and birth/death statistics became more sophisticated, deaths involving violence (including accidents) began to be classified along lines of culpability and more thoroughly investigated.⁵⁸ An injury without a sense-making event was not acceptable. Yet in the nineteenth-century conception of nature as an “aggregate of events,” both diseases and accidents could be the result of many subtle occurrences.⁵⁹ It was the special vulnerability of the asylum patient that journalists used to great effect, emphasising how asylum residents were heavily reliant on the watchful eyes and careful hands of others, and asking readers to consider the “kneaded bod[ies]” of patients being “shovelled out of the way” by asylum staff.⁶⁰ At the same time, though, evoking sympathy on this basis inevitably positioned the patient (as well as the careless or violent attendant) as ‘other.’ Ishita Pande, working on bodily evidence in inquests into child rape deaths in late nineteenth-century India, suggests that part of Laqueur’s humanitarian narrative remains unelaborated. The narrative works, Pande writes, “not so much by arousing selfless compassion for a distant stranger, but by provoking the very opposite sentiment:” distancing the victim and ‘othering’ them as someone in need of special protection by a more powerful social group.⁶¹ Whilst Pande is examining the nineteenth-century colonial context, this uneasy pairing of sympathy and disdain can be seen in some of the coverage surrounding broken rib cases in Britain, including that in the medical press. *The Lancet*, condemning the violent treatment of asylum patients in 1870, nevertheless described such patients as “unpleasant.”⁶² T.L. Rogers, Rainhill Superintendent, also singled out the problematic behaviour of general paralytic patients, who had “very exalted notions of their own power and ability, and a strong propensity to order and direct every one [*sic*] else ... combined with great muscular weakness, diminished sensibility to pain, and inability to protect themselves; leading to quarrels with others where they were at physical disadvantage.”⁶³ The idea that asylum patients were fundamentally different to other people was not simply a matter of behaviour, then, but also a matter of somatic distinction. As the next section shows, asylum doctors were increasingly coming to believe that people suffering from general paralysis were profoundly *physically* different.

GENERAL PARALYSIS AND SOFTENED BONES

In accounting for the fragile bodily state of general paralytic patients, it was possible that—if blame did not lie with attendants—the broader asylum environment was at fault. Like the bedsores or flabby muscles that were the consequence of prolonged bed rest and inactivity, fractures could be explained by asylum life. Shawn Phillips' bio-archaeological study of the Oneida County Asylum in America demonstrates how the peculiarities of institutional life might have a material impact on the body: he links spinal burst fractures to Oneida's labour therapy, in which patients undertook manual work involving heavy lifting. Phillips concludes, however, that institutional life at Oneida served to increase overall skeletal robustness.⁶⁴ In the cases described in this chapter, asylum life had the opposite effect, as Edinburgh physician William Carmichael M'Intosh explained: "I do not think that asylum life [produces bone] disease," he wrote, "but certainly it would aggravate the tendency."⁶⁵ Many contemporary writers on degenerative conditions and diseases of the bones highlighted the importance of exercise to bone development. Like muscle, bone was a tissue that needed to be nurtured, and disuse could lead not only to atrophy, but even a reduction in the amount of bone. If patients spent their days sat on wards, taking little exercise or confined to bed, it was hardly surprising that their physical health would suffer. Ringrose Atkins of the Waterford District Lunatic Asylum found the most pronounced degeneration of the bone in those parts of the body that were unused, such as the lower limbs during bed rest.⁶⁶ The poor state of many patients also militated against their recovery from relatively minor injuries: upon Charles K.'s death, West Riding Superintendent Herbert Major noted: "In a younger and healthier subject than the patient was, the injury would not probably have been attended with any serious consequences but in the debilitated, unhealthy constitutional state in which he was ... it brought about a fatal issue."⁶⁷

In accounting for fractures, then, the patient's constitution or general bodily health was a vital part of the narrative. The discourse surrounding rib fracture in the asylum recalls that surrounding haematoma auris in nineteenth-century Germany: asylum staff, dismissing the possibility that haematomas of the ear were caused by attendant violence, explained them as the result of an underlying condition in patients.⁶⁸ Bethlem Superintendent George H. Savage, for example, aligned haematomas with the tendency of general paralytic sufferers to bruise remarkably easily:

In one case a patient, simply by slipping out of his bed, bruised the outer side of his thigh, producing no abrasion of the skin, but within two days there was an enormous bruise with œdema and tense swelling, resembling a bad case of phlegmonous erysipelas [a severe skin infection, see Chapter “Skin”], which led to a large abscess.⁶⁹

In another case, Savage described the case of a patient who was admitted exhibiting “bruise-like marks,” which within a few days had become larger and more numerous, “some ... so placed that no ordinary bruises could arise in the situation,” others “appear[ing] in the night.”⁷⁰ The belief that asylum patients were especially susceptible to haematomas inspired some practitioners to investigate the phenomenon more closely. In 1875 Lennox Browne of the Central London Ear and Throat Hospital conducted research at the West Riding, publishing his results in volume five of the *West Riding Lunatic Asylum Medical Reports*. He found men particularly prone to haematoma, making up 24 of the 32 cases studied.⁷¹ Though most haematomas occurred in maniacal patients, eight cases were found in general paralytics and—like fractures—these were explained by appealing to the physical behaviour of the patient. “It would appear,” Browne concluded, “that othaematoma is a disease which occurs for the most part in patients subject to attacks of a violent and paroxysmal character”—those whose physical behaviour predisposed them to injury.⁷²

Both haematomas and broken ribs were alighted upon by doctors at the West Riding and elsewhere as phenomena that particularly affected general paralytic patients. Henry H.’s case, for example, was “almost certainly one characterised by extremely brittle bones so frequently associated with General Paralysis.” Despite being kept in a padded room he was found to have several fractures at death, the most likely explanation for which seemed to be his sudden attack on an attendant five days previously.⁷³ As a progressive and degenerative condition, general paralysis appeared in almost every discussion of bone disease amongst the asylum population (there is little reference in the West Riding records to the ‘worm-eaten’ bones of tertiary syphilis, but this symptom is not universally present in the disease). George J. Hearder, Carmarthen Superintendent, referred directly to the broken rib scandal in his 1871 paper, ‘Fractured Ribs in Insane Patients,’ where he said that nine out of 20 postmortems at Carmarthen had revealed ribs in a “diseased state.”⁷⁴ Postmortem observations from several asylums highlighted the unusual appearance of patient’s bones. Before detailing these appearances, a brief caveat: whilst I am reluctant to

project current pathological knowledge onto that of the late nineteenth century, it is worth noting that variations in bone structure may occur according to the time at which postmortem was performed. Decomposition varies in its speed and character according to the external environment, so that if bone is exposed to the air for a length of time it will become dry and more liable to breakages or cracks.⁷⁵ That the bones under study in asylums may have been affected by such variables is a distinct possibility. The West Riding's postmortem records typically note how long after death the postmortem was performed, and this could vary widely according to staff availability and time of death; it was not unusual for the examination to take place over 24 hours after death, as in the case of Elizabeth H., whose postmortem took place two and a half days later.⁷⁶ Some researchers offered ways to get around the problem of postmortem degeneration: in studying the brain, for example, A.H. Newth advised injecting hardening solution directly into the skull through trephine holes, allowing the postmortem to be delayed but preserving the brain in its original state.⁷⁷ The possible impact of such delays on the state of bones was rarely mentioned by contemporary observers, however, and indeed many of the changes to ribs that they detailed seemed too extreme to be the result of natural decay. Ribs could be snapped between two fingers, "broke with a soft rotten sort of fracture," were "soft and boggy," "mere bands of a fibrous substance, like wet leather" or "greasy" and "rough," like "sponge soaked in fat," and when cut exuded "a thick bloody fluid."⁷⁸ Some researchers claimed to have been able to tie bones in a knot due to their incredible flexibility, and their anomalous appearance might be evident for years to come, remaining dark and rotten when preserved.⁷⁹ George Henry Pedler's analysis of the bones of 540 patients at the West Riding declared only 49% of the average insane patient's bone to consist of "true bone," the rest having been replaced by "oily and fatty matters."⁸⁰ Like the muscles, then, the bones of many patients appeared to be liable to a form of fatty degeneration.

This startling degenerative condition was identified by most writers on the subject as *mollities ossium*, or *osteomalacia*: an abnormal softening of the bone. Some described it as the adult counterpart of rickets, as it appeared to be similarly dependent on the external environment. Thomas Markoe, for example, drew attention to the poor living conditions of many rickets and *mollities* sufferers.⁸¹ Other writers argued that *mollities* was a distinct disease involving muscle degeneration alongside skeletal abnormalities.⁸² It was not uncommon to cite *mollities ossium* as a cause of

death as it was understood as a progressive condition with no cure; indeed, orthopaedic specialists often dismissed the condition as one worthy of detailed investigation for precisely this reason.⁸³ Despite disagreement on the exact nature of mollities ossium or osteomalacia, it was clear to most commentators that the condition was peculiarly prevalent in women, usually those who had borne children. Brigitte Fuchs argues that the construction of the condition as female was bound up with the gynaecological specialism of pelvimetry in Central Europe, with treatment increasingly dependent on gynaecological expertise and sometimes surgery.⁸⁴ One of the most famous cases to be found in the medical literature was that of Mme. Supiot (Elizabeth Querian) who came under observation in 1752 at the age of 36. She had borne three children before she began to complain of aching pains in her limbs; the pains were soon accompanied by distortion of the bones and apparently became so extreme as to force her legs into an upright position parallel to her torso.⁸⁵ David Walsh, examining four instances of mollities in female West Riding patients, singled out for particular comment one woman who had the condition despite having never borne children; her case was also noteworthy as she was the only one of the four still living at the time of his writing.⁸⁶

In the previous chapter I argued that degeneration of muscle tissue was a bodily process with significance beyond the merely physical, impacting upon men's ability to work and on perceptions of their masculinity. Similarly, mollities ossium in male general paralytic patients signalled a profound change in the fabric of the body. Joseph Jones had distinguished between mollities ossium (softening) and fragilitas ossium (a brittleness or fragility in which fractures took place from trivial causes), noting that fragilitas ossium was more likely to affect men: he gave the example of a 24-year-old American man who had experienced over 50 fractures during his lifetime.⁸⁷ Yet post-mortem evidence in the asylum—the bones like “wet leather”—pointed to a definite softening of the bone. Although osteomalacia ‘proper’ was generally considered to occur in women, several cases of the condition in men were related that, rather than being taken as evidence for the disease's greater reach, were interpreted as evidence of the ‘feminisation’ of the male body. Sidney Barwise, Surgical Officer at Birmingham General Hospital, prefaced his 1887 article, ‘A Case of Mollities Ossium in the Male’ with the note that “Mollities ossium [was] such a rare condition, especially in men, that no apology [was] necessary for recording the following case,” in which a 31-year-old man exhibited bone softening that had forced his spine into a semi-circle.⁸⁸ In 1880 Ringrose Atkins reported the case of a man who had

been resident at Cork Asylum for over 15 years, during the final seven of which he had been bedridden. The patient's history was of particular interest. Some years before, he had—in an act of self-castration—“removed the entire scrotum and testes” and as a result had “the peculiar effeminate physiognomy and scanty and almost colourless hair of those deprived of the organs of generation.”⁸⁹ At the asylum, a fellow patient had “playfully [thrown] himself on him,” breaking both of his thigh bones; due to the contortion of the limbs, they were splinted and left in the position they had assumed, drawn up towards his stomach. A week later, with the groin and abdomen inflamed, the patient died and a postmortem revealed bones “almost as fragile as rotten timber” that could be cut through with a scalpel.⁹⁰ Atkins' interest in the case was primarily as an example of bone softening in the insane, but Charles Macnamara, relating the case in his *Clinical Lectures* (1881), noted that “it [was] at any rate a coincidence worth noticing in connection with the frequency of this disease of the bones among pregnant women that [Atkins'] patient had mutilated himself so as for many years to have lost virile power.”⁹¹ Macnamara thus linked bone softening in a male patient explicitly to the loss of the reproductive organs, mirroring Central European explanations for osteomalacia in women that associated the condition with ovarian disorders, and that led to curative attempts such as oophorectomy (removal of the ovaries).⁹² That even bone could be considered gendered was evident in J.C. Brown and T.L. Rogers' 1870 article for the *Liverpool Medical and Surgical Reports*, where they described the ribs of a (male) patient D.D. as “much thinner and slighter than usual, resembling those of a female.”⁹³ Bone softening, like muscle degeneration, suggested that the normally hard bodily fabric of male general paralytic patients was being transformed into unproductive and feminine soft matter.

There was an alternative explanation for fracture in cases of general paralysis, however, that attributed breakage to the behaviour of the patient. Private asylum proprietor H.R. Octavius Sankey thought that the extent of fractures seen in general paralysis was beyond what one would expect as the result of a simple fall; neither, he surmised, could so many breaks occur as a result of attendants kneeling on patients. Sankey attributed such injuries to the dulled sensations and impaired reflexes of general paralytic patients that, as we saw in Chapters “*Skin*” and “*Muscle*”, occupied an increasing amount of asylum doctors' attention. General paralytic patients, said Sankey, “[threw] themselves about with reckless violence,” increasing their risk of injury.⁹⁴ Even when left alone, their restlessness and lack of physical control might impact upon their physical wellbeing: Thomas H., whose

two fractured ribs occasioned an inquest, was “extremely restless at night” and his rolling about in bed was judged to be the cause of his injuries in the absence of any other evidence.⁹⁵ In the case of Thomas S., a 44-year-old draper from Skipton, both a lack of reaction to injury and excitability were evident. He was diagnosed with acute mania at admission, but the doctor also noted his suspicion of oncoming general paralysis.⁹⁶ Thomas’s death was preceded by the discovery of several fractured ribs, attributed to an incident on the ward:

...the patient after having been washed and dressed in the morning and having been taken to a seat in the dayroom of his ward, suddenly got up ran down the gallery and kicking over a bucket which was in use fell headlong upon it. The patient did not seem hurt at the time and ate a good breakfast afterwards so that although the accident was reported by the attendant it did not attract special attention at the time.⁹⁷

The importance of general paralysis in Thomas S.’s death was clear in the coroner’s verdict: “accidentally falling over a slop pail in the gallery of no. 18 ward, and thereby fracturing his ribs and causing pleurisy – he being at the time in an advanced stage of general paralysis.”⁹⁸ The characteristic excitement of the disease led to the accident, but also complicated subsequent treatment as his diminished sensations allowed him to eat “a good breakfast afterwards” in the dining room and give no particular cause for concern. Communal areas like dining rooms (Fig. 1) and workrooms were often cited in coroner’s inquests and other accounts as spaces where accidents might take place, or where the apparently healthy condition of the patient had been observed by several people. Watching Thomas S. eat “a good breakfast” was an important mode of informal observation, with an apparently mundane activity capable of being transformed into a vital piece of clinical and legal information. Lack of complaint about injury, like that in Thomas S.’s case, was a common theme among general paralytic patients. Walter M., a regular patient at the West Riding, was diagnosed with recurrent mania upon his final admission but, like Thomas S., signs of general paralysis were recorded prior to his death such as “thick and indistinct” speech.⁹⁹ It was while working in the Asylum mechanic’s shop that Walter’s accident took place: “he had a severe fall but said nothing about it[,] went about as usual and made no complaint of injury until, attention being attracted by his delicate appearance he was examined physically.”¹⁰⁰ Fractures were found that Walter attributed to a blow from



Fig. 1 The West Riding Asylum dining room, late nineteenth century. Reproduced with permission of West Yorkshire Archive Service: Wakefield and the South West Yorkshire Partnership NHS Trust. WYAS C85/1416

a piece of wood, but which he dismissed as painless. It is notable that, in the Medical Director's journal where this case was recounted, the words "but said nothing about it" were an addition to the record inserted above the original sentence—a pointed and careful reminder that, due to the patient's (in)experience of pain, the Asylum staff could not be held fully accountable for failing to notice the injuries earlier. Such amendments to the written record in cases of injury can also be seen in postmortem findings. In the record for Richard P., whose case is discussed above, a doctor or clerk noted that some of his ribs were found to be "broken"; another staff member, however, crossed out this word to replace it with the less emphatic "cracked."¹⁰¹ Such retrospective engagement with the written record can be seen in other West Riding casebooks, which were used as reference tools when a death became the subject of inquiry. In the case of Henry D., described above, elements of his casebook entry were

underlined in blue pencil, suggesting a search for evidence after his death that might shed light on the case and absolve the staff of responsibility for his injuries: that yellowish bruises were found at admission, and that he had moved his bedstead around his room at night.¹⁰² Whilst the patient's behaviour was relevant in many cases of fracture, as this section has described, when dealing with such a serious issue as patient death there was a sense that something more than an account of the patient's movements was needed. Was there, in fact, something about the fabric of the bones themselves that explained their liability to fracture?

QUANTIFYING THE BODILY FABRIC

Were fractured ribs the result of a culture of violence among attendants, an unfortunate corollary of patient excitement, or the consequence of a genuine alteration of the bone that led it to become soft, fragile, and liable to fracture? Many asylum doctors pinned their hopes on the last option. The discovery that weakened bones were one of the consequences of general paralysis would not only help absolve asylum staff of the charges made against them, but it would also demonstrate the value of asylum science to the study of mental disease, and indeed to the field of osteology (Joseph Jones, in 1869, had stressed the need for a thorough investigation of mollities ossium, for instance).¹⁰³ It was not enough, however, to simply reiterate examples from personal experience to prove the tendency to bone breakage; indeed, the retrospective tone of many such examples might merely fuel public suspicion. If alienists were to demonstrate conclusively that fragile bones were a common phenomenon in insanity (and particularly in general paralysis), they would have to offer concrete proof. The obvious way to do this was via the postmortem, which had already uncovered the softened muscles and fatty degeneration of the heart in general paralysis. Like the study of muscle, though, there was always scope for more detailed quantitative observation or new instruments and techniques to complement a doctor's own visual and tactile observations. Alongside analysing the make-up of bones (finding increased amounts of fat and so on), their strength was repeatedly tested. Clouston had tested the bearing weight of the ribs of insane patients in 1870, and Pedler had investigated the state of patient's ribs at postmortem for his 1871 article in the *West Riding Lunatic Asylum Medical Reports* (neglecting, however, to give any detailed information about his methods).¹⁰⁴ Bethlem Superintendent Theo Hyslop, reflecting on his time as Clinical Assistant at

West Riding, said that he, too, had undertaken experiments into breaking strain there using “an ordinary concrete testing machine.”¹⁰⁵

It was Joseph Wigglesworth of Rainhill Asylum who offered one of the most thorough accounts of fractured ribs in asylums by the 1880s. In ‘On Bone-Degeneration in the Insane’ Wigglesworth tested 30 ribs from insane patients, comparing these with eight “healthy” ribs. In 17 of the 30 he found trivial changes, eight were normal, and the remaining five he pronounced “altogether abnormal” on account of cavities and thinning, and the results of minute measurement: he claimed that the average depth of the outer layer of bone in sane patients was 0.59 mm, but in the insane just 0.32 mm.¹⁰⁶ The entry ‘Bone Degeneration in the Insane’ (cross-referenced with ‘Ribs, fractures of’) in Daniel Hack Tuke’s *Dictionary of Psychological Medicine* (1892) was written by Wigglesworth. Here, he summarised present knowledge about bone disease, noting that “there [was] nothing remarkable in the circumstance that the ... failure of nutrition [seen in the insane] should extend to the nervous system.”¹⁰⁷ Though Wigglesworth admitted that such nutritive failure wasn’t confined to the insane, he argued that wasting diseases affecting the bodily fabric were more common among such patients. He concluded that the ribs were healthy in a minority of cases, and that although most cases of fracture could be associated with the wasting effects of old age, in around 10% there existed abnormal fragility. It was this 10% that would be the main topic of investigation over the next 10 to 15 years. “The investigations which have already been made into the condition of the bones in general paralysis tends to the belief that they are much more fragile in that disease than in health, or other forms of mental disease,” wrote Frederick Needham (a passionate opponent of mechanical restraint) in 1872: “An accumulation of facts upon this point will materially affect the question of death from apparent violence in such cases.”¹⁰⁸ Though Wigglesworth and others had based their conclusions on relatively small samples, it was at the West Riding that some of the most systematic investigations into bone strength occurred in the 1890s, utilising large patient populations and making the breaking strain of ribs a standard object of postmortem inquiry. This investigative exercise was aided by a device invented and distributed by Charles Mercier.

Mercier, who had served in several public asylums before going into private practice, was himself afflicted with a chronic bone disease, osteitis deformans (or ‘Paget’s disease’), which led to misshapen bones. In the early 1890s he devised a method of testing the ‘breaking strain’ of ribs, an innovation that promised to solve the question of rib fragility in the insane

once and for all. The fullest description of Mercier's innovation appeared in Rainhill Pathologist Alfred W. Campbell's 1894 paper, 'The Breaking Strain of the Ribs of the Insane: An Analysis of a Series of Fifty-Eight Cases tested with an Instrument specially devised by Dr C.H. Mercier.' To ascertain breaking strain, one "extract[ed] a certain length of the eighth pair of ribs, and [tested] the breaking strain of one of these lengths against the convexity, of the other against the concavity"; an inch of bone was also sawn from the end of each rib for microscopic examination.¹⁰⁹ Mercier's own description of the instrument suggests that it resembled an osteoclast (used to break bones before re-setting them) with measuring apparatus attached: "It had a stirrup at one end and a screw at the other, and between these was a spring which registered the number of pounds pressure exerted. The bone ... was put through the stirrup resting on the fork of the machine; the screw was then turned till the rib broke."¹¹⁰ Mercier sent the instrument to several asylums as well as the larger London hospitals, suggesting that he had on some scale mass produced these instruments.

His interest in the breaking strain of ribs, although it took place several years after the height of the broken rib scandal in the 1870s, intersected with several developments in the 1890s that focused attention on the role and responsibilities of asylum staff. First, the increased regulation of workplaces, encapsulated in legislation such as the 1895 Factory Act, had interest beyond factory walls: the Act's model of employer liability could be extended to a variety of contexts, including the relationship between patients and staff in institutions like the West Riding where many patients undertook work on-site.¹¹¹ Second, the 1890 Lunacy Act had obliged all asylums to keep registers of mechanical restraint. The 1845 Lunacy Act had stipulated that abuse of patients by asylum staff was a chargeable misdemeanour, and the Lunatics Amendment Act of 1853 required asylums to make known to the Commissioners any cases of dismissal for neglect or cruelty. The 1890 Act required asylums to record the reasons for restraint, the methods used, and the length of time patients were kept under it. Third, the concerns of the 1890 Act coincided with a resurgence of public interest in anaesthetic deaths in the 1890s, which had partly contributed to the establishment of the Society for the Protection of Hospital Patients in 1897.¹¹² As the medical professional was himself pathologised as a slightly sinister figure, both pre- and post-mortem procedures had to be absolutely necessary, with the overriding concern being the benefit to the patient.¹¹³ In the asylum the postmortem was partly rationalised as a deterrent, preventing attendants from "ill-using patients, as injuries inflicted upon them

[were] sure to be detected, and it thus [proved] a safeguard and protection to patients.”¹¹⁴ In investigating the strength of patient’s bones, though, the postmortem also held out the potential of a reprieve of sorts for asylum staff—proving that broken ribs were not the fault of attendants, but the result of unusually weak bone structure.

Campbell’s initial research confidently identified an average breaking strain of 44.8 lbs against the convexity of the rib and 44.4 lbs against the concavity in male general paralytics (compared to 62 and 65 lbs, respectively, in a healthy adult male), as well as a marked difference in the breaking strain of male and female bones.¹¹⁵ His second paper on the subject, published only a few months later, was more hesitant: “The difference between the average breaking strain of the ribs of the insane and that of the ribs of persons free from mental disease is not so great as one would anticipate.”¹¹⁶ In this larger sample of 58 Rainhill patients and 50 Royal Southern Hospital patients, Campbell found very little difference between the breaking strain of the ribs of the male asylum patient and that of the male general hospital patient. He theorised that wasting diseases had more impact upon bone structure than mental afflictions, though of course general paralysis (a wasting disease with marked mental effects) had a place on both sides of the argument. Campbell was also forced to admit the existence of anomalies making any concrete conclusions difficult: two female patients from the Royal Southern Hospital had exhibited a breaking strain as low as five pounds.

The inconclusive nature of Campbell’s second set of results did not make the measurement of breaking strain redundant. At the West Riding it became quite the opposite. Mercier noted that, apart from Campbell, he had received no reply from any of the asylums who received his instrument with the exception of William Lloyd Andriezen.¹¹⁷ Andriezen had joined the West Riding as a Medical Officer in 1893 at the age of 26, having obtained First Class Honours from the University of London.¹¹⁸ He said he had used Mercier’s instrument in 122 West Riding post-mortems,¹¹⁹ and the postmortem records testify to this: breaking strain was systematically recorded alongside other facts (such as organ weights and measurement of the hemispheres of the brain) from September 1895. Preprinted certificates for pasting into postmortem books appeared with spaces for the name, date of death, and usual particulars. These certificates contained at their base a pointed reminder of the details to be included in the record:

The following particulars are Statutory:- Condition—External Appearances—Bedsore—Head—Thorax—Describe *ribs* in every case—Abdomen—Weights—Microscopic Appearances and Special Notes.¹²⁰

The postmortem's dual purpose—a means of discovering bodily disease and proving the good treatment of patients—was evident in the need for 'Microscopic Appearances' alongside rib condition and the presence of bedsores. Judging standards of care in the asylum, then, was an activity that took place throughout a patient's stay, including following their discharge (Crichton-Browne's urging of patients to write to him, for example) and after death.

The investigation into breaking strain did not resolve the issue of whether attendants were or were not responsible for patient's bone fractures, however. Rather, it brought the debate full circle, because it placed the responsibility for preventing injury squarely on the heads of asylum attendants. While the duties of the attendant were not clearly defined in the early nineteenth century, the later years of the century saw a concerted effort to mould attendants into a more efficient and effective workforce. In 1890 the Medico-Psychological Association (MPA) adopted the *Report on the Training of Nurses* and in 1891 the Certificate in Attendance and Nursing upon Insane Persons was introduced. By 1899 over 500 of these were being granted each year, with candidates sitting an exam that included questions on the causes of lung disease, the description of sensory and motor nerves, the prevention of patient escape, and how to set "a good example" to patients.¹²¹ This official qualification complemented other moves towards a better-regulated occupation, such as the introduction of the MPA's *Handbook for the Instruction of Attendants on the Insane* in 1885. Peter Nolan also notes a Rule Book for attendants devised by the matron at Morningside Asylum, suggesting that there was a drive for more formal instruction among many nursing staff themselves.¹²²

The contents of the MPA's *Handbook* ranged from an overview of the Lunacy Acts to good practice in matters such as ward ventilation. The issue of restraint was also prominent, with readers advised never to place their knees on the body of the patient in instances when "a struggle [was] unavoidable."¹²³ The risk of broken ribs was explicitly articulated (and highlighted in bold text) in Mercier's own handbook, *The Attendant's Companion* (1898): "under no circumstances whatever should a patient be knelt on," he warned, as this could lead to broken bones.¹²⁴ Attendants were advised that many patients—but especially the elderly and general

paralytic—had unusually fragile bones, and they were instructed to report any complaints of pain or ‘shrinking away’ from physical contact to a senior member of staff, as well as any bruises or abrasions noticed during dressing and bathing. Mercier emphasised that only a medical officer could provide a definitive diagnosis, reflecting the view that for asylum attendants “a little learning [was] a dangerous thing.”¹²⁵ Indeed, when the fifth edition of the MPA’s *Handbook* was published in 1908, it was criticised for its increasing focus on anatomy.¹²⁶ There was a sense that, despite the introduction of official certification and training, many asylum staff remained if not morally then at least intellectually inferior. Bevan Lewis worried that the “intellectual element” that had been introduced into the nurse’s or attendant’s life via the MPA’s training scheme risked making them a hindrance rather than a help: “obtrusive in [their] desire to exhibit [their] knowledge” and “worr[ying] and distract[ing] the physician by [their] constant attempt to note facts.”¹²⁷ Others—like Clouston—had long emphasised the benefits of collaboration between attendants, nurses, and medical officers, proudly relating that Morningside’s “miles of beautifully kept charts” and conversations with its nursing staff had helped its doctors to produce an original investigation into the treatment of general paralysis.¹²⁸ Yet, as the final section of this chapter discusses, not all original research was necessarily meaningfully incorporated into the broader research culture of an institution. At the same time, some asylum doctors were also beginning to question the utility of such meticulous investigation as that encouraged by Mercier’s breaking strain instrument.

QUESTIONING PATHOLOGICAL RESEARCH AND ALIENIST EXPERTISE

By the early twentieth century, the West Riding’s postmortem books displayed a distinct lack of concern for the breaking strain of bones. Despite new preprinted books providing a specific line for ‘Ribs,’ there was no meticulous charting of breaking strain. Instead, vague statements were used such as “Normal,” “Rather Soft,” and “Softish.”¹²⁹ That the post-mortem records were kept in this fashion by a number of staff members suggests that breaking strain was considered less useful as a pathological fact. Even if researchers could prove, via meticulous pathological investigation, that the bones of many asylum patients were more fragile, or softer,

than those of the general population, it was not a fact that would alter the responsibilities of asylum staff.

Other technical innovations had arisen out of concerns for the mistreatment of patients, such as the development of rectal feeding as an alternative to oral force-feeding.¹³⁰ Technologies like rectal feeding had clear beneficial effect, as the emaciated patient grew in strength despite having refused to take, or being unable to be given, food orally. However, pathological technologies that acted upon the dead body, as well as possibly reinforcing the public image of the pathologist as ghoul, were of little practical benefit to patients. The most basic argument for pathological research was the benefit to future patients from knowledge gained in the comparison of bodies and disease—and as we'll see in Chapter "Fluid", postmortem findings could directly inform clinical and surgical practice. Investigations into breaking strain, though, were notoriously inconclusive and to many commentators added insult to literal injury as they subjected the body to further indignities. Certainly such tests would have played into the hands of a number of vocal anti-vivisectionists in the 1890s, who—alarmed by the animal experimentation taking place in many hospitals and asylums across Britain—proclaimed that human experimentation would be next on the scientific agenda.¹³¹ Whilst Lindsay extolled the virtues of the postmortem in uncovering conditions which were "quite unsuspected during life," the very same argument could be turned around to argue that time might be better spent in making closer observation of patients during their lifetime.¹³² Constructing the patient as an individual who was unusually physically weak merely served to increase the importance of careful attendance. In the early twentieth century the West Riding's *Regulations and Orders* for attendants continued to remind readers that "On no account must the knees be placed on the body."¹³³

Gathering knowledge of mental diseases took place across several sites in the asylum: from the observation of a patient's excitable behaviour on wards or in dayrooms and dining rooms, to the physical testing and microscopic observation of bones in the mortuary and pathological laboratory. The skill of those conducting such tests into breaking strain was often questioned, however, with some physicians criticising the supposedly amateur postmortems that went on in asylums. There was a tendency to view the asylum pathologist—rather like the asylum attendant—as under-qualified for his position, and one can well imagine the response to a researcher conducting experiments with a concrete testing machine, as Hyslop had done. Because his own experiments had found no changes to

bones, surgeon Charles Macnamara was doubtful of the value of experiments into breaking strain and questioned the skill of asylum pathologists. He argued that such investigation should only be undertaken by those possessing special knowledge of the osseous system.¹³⁴

Additionally, there was sometimes a surprising lack of dialogue among asylum doctors during the course of their experiments. Francis Simpson's *Pathological Statistics of Insanity* (1900), which collated a huge amount of postmortem data on both brains and rib strength at the West Riding, made clear that he was unaware of similar data collection undertaken there by Frederick St. John Bullen.¹³⁵ Simpson was later able to locate a small amount of Bullen's research material that remained at the Asylum, but was unable to use much of it "on account of the confusing mass of detail involved, and the use of private symbols by the collector."¹³⁶ A.H. Newth had complained in 1899 that the value of asylum pathological research was being compromised not only due to a failure to compare it with other work, but also by a tendency to treat it as disposable material. Newth had mounted thousands of microscopic slides at Sussex Asylum but, he related, "practically they were all thrown away, and this, no doubt, [was] the experience of many."¹³⁷

Proponents of laboratory-based research—though now symbolic of scientific rigor—still had a long way to go in the late nineteenth century in convincing some of their colleagues of its use. In 1900 *The Lancet* condemned the proliferation of pathology laboratories, which it described as "emblematic of the dangerous trend toward insularity in modern medical practice."¹³⁸ Although many staff at the West Riding undertook significant pathological, histological, and physiological work, Newth's anecdote is a reminder that the simple acquisition of laboratory equipment—as detailed in the Asylum's annual reports—should not necessarily be taken as evidence for the widespread *use* of that equipment, or indeed for sustained courses of scientific investigation. Some pieces of equipment were acquired at the request of individual medical officers, such as Simpson's desire for a "calculating machine" to deal with his large amounts of data.¹³⁹ This, and the use of "private symbols" in some doctor's work, suggested that a degree of insularity could exist even within the same laboratory (Fig. 2) as staff members pursued their personal research concerns.

The skill of staff could also be questioned when they attempted to apply their knowledge and findings outside the asylum walls. Those asylum doctors taking an active part in lab-based research were perhaps at a double disadvantage here, as both laboratory science and 'professional' alienism



Fig. 2 The West Riding Asylum pathological laboratory, mid 1890s. Medical officers are joined by Lab Assistant Richard Howden (standing). Reproduced with permission of West Yorkshire Archive Service: Wakefield and the South West Yorkshire Partnership NHS Trust. WYAS C85/1413

were still developing disciplines in the late nineteenth century. The reaction to alienist evidence in court cases (and in the popular and medical press), which in the era of expert witnessing was cross-examined and questioned, led many alienists to feel it was *they* who were on trial rather than the defendants. This suspicion of their knowledge inevitably extended to discussions of bone fragility, in which there were distinct legal implications. Many articles by asylum doctors read as though they were explaining any doubtful incidents in their institutions before they were brought to light by a sensationalistic press. T.L. Rogers, for example, in ‘On Fractured Ribs in Insane Patients’ carefully concluded: “I have now given an account of all the cases of fractured ribs that have occurred lately (or at least that have been detected) in the Rainhill Asylum.”¹⁴⁰ If superintendents like Rogers were “in terror of the coroner,” then the volunteering of accounts of deaths in

their institutions might be perceived as a commendable action, and their provision of data on the subject evidence of their scientific expertise.¹⁴¹ Such confessions, however, did not overcome the gulf that often existed between alienism and medicine more broadly, and alienism and the public.

Roger Smith, in *Trial by Medicine* (1981), provides a good example of why “[w]hat was an obvious empirical reality to insanity specialists was unknown, and therefore assumed fictitious by others.”¹⁴² He cites the case of Thomas Donnelly, who was accused of assault with intent to rape in 1862. At his trial medical witnesses argued that Donnelly’s insanity was a consequence of his epilepsy, but Smith notes that “[t]he jury’s insanity verdict probably owed more to [Donnelly’s] delusions than to the medical view that epilepsy led to a lack of control.”¹⁴³ The case is used by Smith to illustrate that there were conditions (such as epilepsy, but one could add general paralysis to the picture) that would rarely be identified as such outside the asylum context, making it difficult for alienists and nonalienists to operate within a shared discourse. Conflicting professional knowledge was often evident in court cases investigating fracture deaths. Joseph Workman of Canada’s Toronto Asylum was critical of a case in which it had been argued that multiple ribs could not possibly be broken without some pain, but in which no testimony as to the diminished sensations common to general paralysis had been heard from a doctor well-versed in asylum care.¹⁴⁴

This emphasis on the place of medical knowledge in cases where interpersonal violence was suspected recalls the situation in British India in the late nineteenth century as described by Jordanna Bailkin. There, in cases in which Indian patients had died from ruptured spleens, medical evidence was used to suggest that Indian bodies were peculiarly vulnerable due to the ravages of malaria. Like broken rib cases, ruptured spleen cases were carefully documented and medical evidence was introduced that served to absolve British officials of the charge of murder on account of the supposed fragility of the Indian body.¹⁴⁵ Both the Indian malarial patient and the fragile-boned asylum patient were appealing explanatory models. Indeed, broken ribs became something of a self-fulfilling prophecy: “the more attention [that was] called to [them], the more frequent [did] the occurrence seem to become,”¹⁴⁶ suggesting that broken ribs may have fulfilled what Richard Kanaan and Simon Wessely have termed a “diagnostic need.”¹⁴⁷ Fractures may have risked throwing asylums and their staff into disrepute but they could also, as the subject of detailed pathological investigation, furnish new knowledge about mental disease and speak directly to contemporary attempts to find a physical basis for patients’

conditions. The idea that general paralytic patients were peculiarly prone to bone disease was one that fitted logically alongside contemporary theories about both disease susceptibility and the generally reduced health of the asylum patient.

Whilst the insanity defence might absolve an individual of responsibility in cases of ‘deranged’ actions, the insanity-as-pathology defence at the heart of the broken rib debate rarely served to exonerate asylum officials. Attributing deaths to softened, fragile bones did not—in a medico-legal climate that was increasingly emphatic about the multiple factors involved in deaths or accidents—prove that no violence was involved, or alter the responsibilities of asylum attendants. The idea of the fragile-boned asylum patient is echoed in the turn-of-the-century concept of accident proneness described by John Burnham. He argues that, around 1900, a group emerged in occupational health discourse who “suffered injuries and caused damage” on a greater scale than the majority of the working population.¹⁴⁸ These were people who, through no calculated effort of their own, were apt either to endanger their own safety at work or jeopardise that of others. Like the broken rib phenomenon, accident proneness raised questions of how to “deal with [people] who [showed] a pattern of inadvertent but sometimes dangerous destructiveness” and who could not be held accountable for their actions.¹⁴⁹ The accident-prone individual and the fragile-boned insane patient were both conceptualised as “natural objects” and dependent on external intervention for their own safety: railings around machinery for the former, padded rooms and physical restraint for the latter, and careful surveillance for both.¹⁵⁰

In configuring the broken or softened bone as an object worthy of particular investigation, it was accorded a significance that impacted upon the alienist profession in several practical ways. Concerns about broken ribs structured postmortem records (the preprinted slips used at the West Riding) and case records (the careful recording of incidents taking place on the wards), and became incorporated into official guidance for attendants (the MPA *Handbook* and Mercier’s *Attendant’s Companion*). If bone disease was an area that some thought asylum doctors ought not to be meddling in, however, there was one part of the body where their extensive investigation was more justified: the brain. In the next chapter, we look at how the brain—as the pinnacle of pathological examination in the asylum—was examined at postmortem, but also how it, like bones, could structure and impact upon investigative processes and practices.

NOTES

1. A version of this chapter appeared as Jennifer Wallis, "The Bones of the Insane," *History of Psychiatry* 24, no. 2 (2013). SAGE Publications; doi:10.1177/0957154X13476200; <http://hpy.sagepub.com/content/24/2/196.full.pdf+html>.
2. Anon., "The Broken Ribs in the Hanwell and Carmarthen Asylums," *JMS* 16, no. 74 (1870): 251; Anon., "A Death in a Lunatic Asylum," *The Lancet* 95, no. 2419 (8 Jan. 1870): 58.
3. Charles Reade, "How Lunatics' Ribs get Broken," *Pall Mall Gazette* (20 Jan. 1870).
4. See for example John Green, "Experiences in a Lunatic Asylum," *Pall Mall Gazette* (2 Feb. 1893); Anon., "In a Lunatic Asylum," *Pall Mall Gazette* (9 May 1870).
5. Thomas Laqueur, "Bodies, Details, and the Humanitarian Narrative," in *The New Cultural History*, ed. Lynn Hunt (Berkeley: University of California Press, 1989), 190.
6. Jordanna Bailkin, "The Boot and the Spleen: When was Murder possible in British India?" *Comparative Studies in Society and History* 48, no. 2 (2006): 482–83.
7. Anon., "A Social Blot," *BMJ* 2, no. 512 (22 Oct. 1870): 441.
8. Anon., "Death in a Lunatic Asylum": 58.
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10. John Sheehan, "The Role and Rewards of Asylum Attendants in Victorian England," *International History of Nursing Journal* 3, no. 4 (1998): 28–29, 31.
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12. Neil Brimblecombe, "Asylum Nursing in the UK at the end of the Victorian Era: Hill End Asylum," *Journal of Psychiatric and Mental Health Nursing* 12, no. 1 (2005): 62. On asylum attendants also see Louise Hide, *Gender and Class in English Asylums, 1890–1914* (Basingstoke: Palgrave Macmillan, 2014), Chapter 3.

13. Anon., "Charge against a Lunatic Attendant," *The Ipswich Journal* (25 Jan. 1889).
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15. John C. Burnham, *Accident Prone: A History of Technology, Psychology, and Misfits of the Machine Age* (Chicago: University of Chicago Press, 2009), 221.
16. WYAS C85/1/13/3 Medical Director's journals (1874–1881): Quarterly meeting 20 Oct. 1880.
17. P.W.J. Bartrip, *The Home Office and the Dangerous Trades: Regulating Occupational Disease in Victorian and Edwardian Britain* (Amsterdam: Rodopi, 2002), 2.
18. Anon., "London Gossip," *The North-Eastern Daily Gazette* (3 Mar. 1887).
19. Emphasis in original. Cited in T. Christian, "On the Alleged Fragility of the Bones of General Paralytics," *JMS* 31, no. 136 (1886): 457–58.
20. Florence Hale Abbot, "Feeding and the Use of Restraint in Caring for the Insane," *The American Journal of Nursing* 4, nos. 1, 2 (1903). Anne Digby argues that the risk of injury for attendants increased with the end of mechanical restraint. See Anne Digby, *Madness, Morality, and Medicine: A Study of the York Retreat, 1796–1914* (Cambridge: CUP, 1985), 151.
21. WYAS C85/1/13/5 Medical Director's journals (1888–1894): Quarterly meeting 21 Sept. 1893.
22. WYAS C85/1/12/3 Annual Reports of the Medical Superintendent (1868–1879). *Report of the Committee of Visitors and of the Medical Superintendent of the West Riding Pauper Lunatic Asylum for the year 1868* (Wakefield: Hicks and Allen, 1869). Report of the Medical Superintendent, 36.
23. WYAS C85/1/12/3 Annual Reports of the Medical Superintendent (1868–1879). *West Riding Pauper Lunatic Asylum, Report of the Committee of Visitors and of the Medical Superintendent of the West Riding Pauper Lunatic Asylum for the year 1870* (Wakefield: B.W. Allen, 1871). Report of the Medical Superintendent, 32.
24. Robert James Ellis, "A Field of Practise or a Mere House of Detention? The Asylum and its Integration, with Special Reference to the County Asylums of Yorkshire, c.1844–1888" (doctoral thesis, University of Huddersfield, 2001), 244.
25. WYAS C85/1/13/5 Medical Director's journals (1888–1894): Quarterly meeting 20 Jun. 1889.
26. WYAS C85/3/6/112 Medical casebook M18 (1864–c.1890), 493–94.
27. *Ibid.*, 490.
28. *Ibid.*, 493–94.
29. WYAS C85/1/13/4 Medical Director's journals (1882–1888): Quarterly meeting 30 Oct. 1884.

30. Hide, *Gender and Class in English Asylums*, 160.
31. D.J. Mellett, "Bureaucracy and Mental Illness: The Commissioners in Lunacy 1845–90," *Medical History* 25, no. 3 (1981).
32. Brown and Rogers, "On Fractured Ribs in Insane Patients": 96.
33. See Roger Cooter, "The Moment of the Accident: Culture, Militarism and Modernity in Late-Victorian Britain," in *Accidents in History: Injuries, Fatalities and Social Relations*, ed. Roger Cooter and Bill Luckin (Amsterdam: Rodopi, 1997).
34. *Ibid.*; Jamie L. Bronstein, *Caught in the Machinery: Workplace Accidents and Injured Workers in Nineteenth-Century Britain* (Stanford: Stanford University Press, 2008).
35. Bartrip, *Home Office and the Dangerous Trades*, 10.
36. Ian A. Burney, *Bodies of Evidence: Medicine and the Politics of the English Inquest, 1830–1926* (Baltimore: Johns Hopkins University Press, 2000), 139. See also Jonathan Andrews, "Introduction: Lunacy's Last Rites," *History of Psychiatry* 23, no. 1 (2012), who notes "institutional authorities' propensity to blame mortality on families and patients themselves" (3).
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38. J.F. Briscoe, "The Osseous System in the Insane," *BMJ* 2, no. 1979 (3 Dec. 1898): 1677.
39. John Batty Tuke quoted in Anon., "Quarterly Meeting of the Medico-Psychological Association," *JMS* 16, no. 76 (1871): 634; Anon., "The Medico-Psychological Association: The Report of a Quarterly Meeting of the Medico-Psychological Association, held in London, at the Royal Medico-Chirurgical Society, by permission of the President and Council, on the 27th January, 1870," *JMS* 16, no. 73 (1870): 140–41.
40. Bartrip, *Home Office and the Dangerous Trades*, 26.
41. Leonard D. Smith, *'Cure, Comfort and Safe Custody': Public Lunatic Asylums in Early Nineteenth-Century England* (London: Leicester University Press, 1999), 247.
42. WYAS C85/1/13/3 Medical Director's journals (1874–1881): Quarterly meeting 29 Apr. 1875.
43. WYAS C85/1117 Coroner's warrant book (1834–1879); WYAS C85/771 Coroner's warrant book (1879–1919). This is a fine example of the importance of careful proofreading: in "The Bones of the Insane" (note 1) I mistakenly suggested that 384 inquests took place in the period 1834–1879, rather than 1834–1919. The figure stated here is the correct one.

44. WYAS C85/3/6/112 Medical casebook M18 (1864–c.1890), 329–30.
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46. Laqueur, "Bodies, Details, and the Humanitarian Narrative," 194.
47. Great Britain General Register Office, *Registration of the Causes of Death. Circulars to Medical Practitioners, and to Registrars. A Statistical Nosology, for the use of those who return the causes of death under 6 and 7 WILL.IV, c.86. Circular to Coroners, and A Classification of the Causes of Violent Deaths* (London: W. Clowes, 1845), 75.
48. *Ibid.*, 78.
49. WYAS C85/3/6/140 Medical casebook M46 (1884–c.1888), 489–92.
50. Anon., "Alleged Murder of a Lunatic," *BMJ* 2, no. 1142 (18 Nov. 1882): 1012.
51. Burney, *Bodies of Evidence*, 109. On expert witnesses see Christopher Hamlin, "Scientific Method and Expert Witnessing: Victorian Perspectives on a Modern Problem," *Social Studies of Science* 16, no. 3 (1986).
52. Burney, *Bodies of Evidence*, 136.
53. WYAS C85/3/6/111 Medical casebook M17 (1862–c.1889), letter placed between 321–22.
54. WYAS C85/1117 Coroner's warrant book (1834–1879), 20 May 1863.
55. WYAS C85/1/13/5 Medical Director's journals (1888–1894): Quarterly meeting 18 Jun. 1891.
56. WYAS C85/1/13/3 Medical Director's journals (1874–1881): Quarterly meeting 29 Jul. 1880.
57. *Ibid.*: Quarterly meeting 23 Oct. 1876; WYAS C85/600 Register of admissions Male nos. 7282–7575, Female nos. 7425–7688 (1876–1877).
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59. Karl Figlio, "What is an Accident?," in *The Social History of Occupational Health*, ed. Paul Weindling (London: Croom Helm, 1986), 197.
60. Anon., "Ill-Treatment of the Insane (from the *Daily Telegraph*)," *The Examiner* (12 Mar. 1870).
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62. Anon., "The Treatment of Lunatics," *The Lancet* 95, no. 2421 (22 Jan. 1870): 130.
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67. WYAS C85/1/13/4 Medical Director's journals (1882–1888): Quarterly meeting 25/26 Oct. 1882.
68. Kai Sammet, "Controlling Space, Transforming Visibility. Psychiatrists, Nursing Staff, Violence, and the Case of Haematoma Auris in German Psychiatry c.1830 to 1870," in *Madness, Architecture, and the Built Environment: Psychiatric Spaces in Historical Context*, ed. Jonathan Andrews, James E. Moran and Leslie Topp (London: Routledge, 2007), 293.
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72. *Ibid.*: 151.
73. WYAS C85/1/13/5 Medical Director's journals (1888–1894): Quarterly meeting 17 Dec. 1891; WYAS C85/3/6/151 Medical casebook M57 (1891–c.1892), 449–52.
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 84. Brigitte Fuchs, “Osteomalacia: Femininity and the “Softening of Bones” in Central European Medicine (1830–1920)” in *Bodily Subjects: Essays on Gender and Health, 1800–2000*, ed. Tracy Penny Light, Barbara Brookes and Wendy Mitchinson (Montreal and Kingston: McGill-Queen’s University Press, 2014).
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 97. WYAS C85/1/13/3 Medical Director’s journals (1874–1881): Quarterly meeting 31 Jul. 1879.
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 99. WYAS C83/3/6/133 Medical casebook M39 (1879–c.1889), 513–16.
 100. WYAS C85/1/13/3 Medical Director’s journals (1874–1881): Quarterly meeting 28 Jul. 1881.
 101. WYAS C85/3/6/112 Medical casebook M18 (1864–c.1890), 494.

102. WYAS C85/3/6/111 Medical casebook M17 (1862–c.1889), 321–22.
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104. Anon., “Quarterly Meeting of the Medico-Psychological Association”: 634; Pedler, “Mollities Ossium and Allied Diseases.”
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135. This was work that Bullen undertook for his 1890 article. F. St. John Bullen, "An Abstract of 1565 Post-Mortem Examinations of the Brain performed at the Wakefield Asylum during a Period of Eleven Years," *JMS* 36, no. 152 (1890).
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