DOCUMENTS AND SOURCES

Sources in the History of Occupational Health: The Turner & Newall Archive

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SUMMARY. Sources in the history of occupational health are scanty—a reflection perhaps of the contentious nature of the documentation. In the UK, asbestos company records have until recently been unavailable and consequently historians and policy-makers have been hindered from exploring a major public health issue. In 1995, however, Chase Manhattan Bank in New York sued the leading British asbestos producer, Turner & Newall, in a property-damage claim. During pre-trial discovery, Chase had copied a large proportion of Turner & Newall's vast archive and under American law was able to put the records in the public domain. This article describes how this collection of records—perhaps the largest anywhere on the history of an occupational health hazard—was generated. It also suggests ways of navigating the documents; discusses the nature of the material; and the archive's uses to medical and industrial historians.

KEYWORDS: asbestos, asbestosis, mesothelioma, archives, Turner & Newall

Introduction

Hazardous industries and industrial diseases are one of the most under-researched areas in medical and industrial history, particularly in the UK. There seem to be three basic reasons for this. First, occupational health and safety is a Cinderella subject area, with few medical or business historians choosing it as a specialization. Consequently, it is difficult to think of a single major historical book on British industrial disease.[1] The second reason relates to the availability of documentation. The sensitivity of records on health and safety means that many of them rarely become public. Since such records often determine corporate liability, they are hardly—if ever—made available by companies. The government's attitude is scarcely more open. In the UK, there is (at time of writing) no public right to know and no freedom of information law. The Labour government was elected with a manifesto pledge to soften official secrecy, but the government's long-standing reluctance to make health and safety documents available looks set to continue.

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[1] There is a useful edited collection: P. Weindling (ed.), *The Social History of Occupational Health* (London, 1985). However, the subject has evoked much more interest in America, where there are a number of fine studies: D. Rosner and G. Markovitz, *Deadly Dust: Silicosis and the Politics of Occupational Disease in Twentieth-Century America* (Princeton, 1987); D. Rosner and G. Markowitz (eds.), *Dying for Work: Workers' Safety and Health in Twentieth Century America* (Bloomington, 1987); R. Bayer (ed.), *The Health and Safety of Workers: Case Studies in the Politics of Professional Responsibility* (New York, 1988); and C. Clark, *Radium Girls: Women and Industrial Health Reform, 1910–1935* (Chapel Hill, NC, 1997). A more general monograph has also appeared recently: C. C. Sellers, *Hazards of the Job* (Chapel Hill, NC, 1997).

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Under proposals outlined in 1999 by Home Secretary, Jack Straw, it is one of the specific areas that will be exempt from any forthcoming freedom of information legislation. Third, even if documents become accessible, actually publishing them or quoting from them is fenced in by copyright law, Britain's draconian libel laws, and the English legal system.

These problems are well illustrated by looking at Britain's biggest occupational killer—asbestos. This mineral is now the leading cause of occupationally related deaths in the UK. About 3,000 individuals die each year from either asbestosis or asbestos-related cancers (such as mesothelioma) and this number will continue rising until at least 2020. Present European mortality projections make frightening reading. In 1999, one study projected that in western Europe 250,000 men would die of mesothelioma between 1995 and 2029; with half a million as the corresponding figure for the total number of western European deaths from asbestos.[2] Depressingly, although most people believe that it is only in the last two or three decades that the dangers of asbestos have been properly appreciated, it was identified as an industrial hazard at the beginning of the twentieth century.[3] The present high mortality combined with decades of 'failed warnings' have made asbestos one of the most feared and controversial of industrial materials. Yet, apart from a socialist polemic on the asbestos industry, published in 1976 by Alan Dalton, historical writing on the subject has been thin.[4] The number of academic articles on the medical and legal history increased slightly thereafter, due largely to the efforts of Morris Greenberg and Nick Wikeley.[5] However, not until Wikeley's book on asbestos disease appeared in 1993 was a thorough account of British developments written.[6] Even then the picture was heavily obscured. Although Wikeley's main interest was the legal aspects of compensation, his attempt to examine the history of the leading companies was thwarted by the lack of documentation. No records were known to exist for the industry's leading firms, such as Turner & Newall (known as T&N after 1987[7]) and Cape Asbestos. T&N ignored Wikeley's enquiries about their records, while Cape informed him that their company records had been destroyed.

In the 1980s and early 1990s, the chances of any documents appearing through litigation in Britain appeared remote. Asbestos companies have traditionally had a

[2] J. Peto *et al.*, 'The European Mesothelioma Epidemic', *British Journal of Cancer*, 79 (1999), 666–72.

[3] The first death of a British worker from asbestosis was reported in 1906, by which time the government's Factory Inspectors were noting the lethal effects of asbestos fibre.

[4] A. Dalton, *Asbestos Killer Dust* (London, 1979).

[5] M. Greenberg, 'Classical Syndromes in Occupational Medicine: The Montague Murray Case', *American Journal of Industrial Medicine*, 3 (1982), 351–6; and 'Knowledge of the Health Hazard of Asbestos Prior to the Merewether and Price Report of 1930', *Social History of Medicine*, 7 (1994), 493–516; N. J. Wikeley, 'Measurement of Asbestos Dust Levels in British Asbestos Factories in the 1930s', *American Journal of Industrial Medicine*, 24 (1993), 509–20; 'The Asbestos Regulations 1931: A Licence to Kill?', *Journal of Law and Society*, 19 (1992), 365–78; 'Asbestos and Cancer: An Early Warning to the British TUC', *American Journal of Industrial Medicine*, 22 (1992), 449–54. See also P. J. Weindling, 'Asbestose als Ergebnis institutioneller Entschadigung und Steurung', in D. Miles (ed.), *Gesundheitsrisiken und soziale Sicherungen in der Geschichte* (Bremerhaven, 1993), pp. 351–62; R. Johnston and A. McIvor, 'Incubating Death: Working with Asbestos in Clydeside Shipbuilding and Engineering, 1945–1990', *Scottish Labour History*, 34 (1999) 74–92.

[6] N. J. Wikeley, *Compensation for Industrial Disease* (Aldershot, 1993).

[7] T&N is now owned by an American engineering firm, Federal Mogul.

policy of settling compensation claims before they reached court, thus reducing legal costs and ensuring that the industry was rarely opened up to public scrutiny. Legal challenges to the asbestos companies seldom produced detailed documentation. Plaintiffs' solicitors are allowed to request relevant records during pre-trial 'discovery', but in the UK the laws for enforcing full disclosure are weak. The leading British asbestos firms had a well-deserved reputation for either denying that records existed or using a myriad of excuses to explain why key documents could not be found. One barrister has complained: 'My experience in asbestos cases is that the usual list of documents [produced by a company] gives you absolutely zero . . . and indicates that you can't expect us to remember what we once had many years ago.'[8] For example, Turner & Newall told victims of asbestos disease and their dependants that only employment record cards had survived, or that they no longer had power over the records of subsidiary companies, or that documentation simply did not exist.[9] Even if records were produced, English common law ensures that documents obtained by discovery from another party (whether or not of a confidential nature) are subject to absolute protection. Only if a document has been read out or referred to in court can it be used for purposes other than the original litigation.[10]

In effect, a critical evaluation of the asbestos hazard was blocked by the industry, the government and its instrument, the English legal system. However, in the 1990s some of these blockages in the flow of information were dramatically breached by developments in America. In 1995, Chase Manhattan Bank sued T&N for the costs of removing asbestos from its New York office skyscraper. As a result, T&N's records were brought into the public domain. In the following year, Wellcome Trust funding enabled researchers at Manchester Metropolitan University to obtain a microfilm/fiche copy of the records generated by Chase during pre-trial discovery.[11] This article will describe how this collection of records was generated; indicate ways of navigating the documents; discuss the nature of the material; and its uses to medical and industrial historians.

The Creation of the T&N Archive

The key that unlocked the T&N archive was the US legal system and America's very different attitude to freedom of information. Strict product liability laws have

[8] Kieran May interview, 'An Acceptable Level of Death', BBC TV, 14 April 1994.

[9] The BBC documentary, 'An Acceptable Level of Death' (note 8), highlighted the Standen case to demonstrate T&N's robust attitude to litigation. George Standen was a Newalls' lagger, who had died from mesothelioma in 1979. When his widow, Elizabeth, claimed damages, T&N denied that they had 'now or ever had in their possession custody or power any document of any description whatever relating to any matter in question in this action'. The statement is contained in the First Affidavit of Malcolm John Ward (assistant company secretary, Newalls Insulation) 17 August 1993, in E.M. Standen v. Newalls Insulation, in High Court, Queen's Bench Division, 1991: 8 No. 8452.

[10] The importance attached by the English courts to the issue of the protection of documents was underlined in November 1998 when the House of Lords held (in Taylor v. Serious Fraud Office) that the rule even applies to criminal proceedings.

[11] The Wellcome Trust not only helped finance the purchase of the records, but also funded research on the material at Manchester Metropolitan University. See G. Tweedale, *Magic Mineral to Killer Dust: Turner & Newall and the Asbestos Hazard* (Oxford, 2000).

developed in the USA, which means that manufacturers have a duty of care towards the user (even if they were not the ultimate suppliers or makers of the finished product). These liability laws were honed in the 1970s, with the asbestos industry involved in several important test cases.[12] The asbestos companies were subjected to American legal discovery rules, which are far more wide-ranging and rigorous than in the UK. In marked contrast to Britain, plaintiffs and their lawyers are not simply dependent on companies *giving* them documents, but can apply for sweeping powers to search for records themselves. They can even roam through factory premises and demand to see documents *in situ*.

In the late 1970s, legal actions against some the leading US companies began illuminating the history of the asbestos hazard. It was the beginning of the largest wave of litigation in history, as the asbestos companies proved a relatively easy target for the growing army of personal injury lawyers. It was soon demonstrated that asbestos had been known to be hazardous for decades, that companies had been negligent in dust control, and that they had also suppressed evidence. For example, discovery forced Raybestos-Manhattan to disgorge the 'Sumner–Simpson Papers', relating to the company president, which at that time were regarded as the most revealing discovery documents in the history of asbestos litigation. Further court cases over the years shed light on the actions of other American asbestos companies. As one environmental expert, Barry Castleman, has observed: 'Only corporate documents and testimony of the individuals involved could recreate events as they emerged "from the inside." This inside story was developed at enormous expense by attorneys representing plaintiffs in asbestos litigation. It could not have emerged as fully by any other means.'[13]

Interestingly, the trawl of documents was extensive enough to throw up some material relating to British companies operating in America. These included Turner & Newall and Cape Asbestos. The Sumner–Simpson papers, for example, documented Turner & Newall's involvement (via its US subsidiary Keasbey Mattison) with the industry's early medical research in the 1940s. This research, which suggested a link between asbestos and lung cancer, was never published. Although Turner & Newall liquidated Keasbey-Mattison in 1963, it continued to hold a range of assets in America.[14] This meant that the British company was subject to the jurisdiction of the US courts, when the avalanche of personal injury suits began against the asbestos firms. In 1977, the first US personal injury case was lodged against Turner & Newall. Within a year, the American courts issued a 'non-destruction directive' to the UK company, so that documents relevant to the American litigation would not be destroyed. Additional directives followed. In

[12] The Fifth Circuit's decision in *Borel* v. *Fibreboard Corporation, 493 F.2d 1076* (1974), which elaborated the theory of strict liability for failure to warn users of the hazards of an inherently dangerous product, is just one example. See P. Brodeur, *Outrageous Misconduct: The Asbestos Industry on Trial* (New York, 1985).

[13] B. I. Castleman, *Asbestos: Medical and Legal Aspects*, 4th edn (Englewood Cliffs, NJ, 1996), p. 699. The successive editions of Castleman's study show how legal discovery has allowed an increasingly detailed picture to be drawn of the asbestos industry.

[14] This was in contrast to Cape, which had sold its American assets by the early 1980s. This meant that it could simply ignore court orders and awards (in millions of dollars) that were made by American jurors against its past actions in selling asbestos fibre.

1986, another stipulation and order was entered in a personal injury case in which Turner & Newall was involved in the eastern district of Virginia (*Dalton* v. *Celotex Corporation*). This instructed the company to produce and compile an index of its documents that related to the hazards of asbestos between 1920 and 1965. The company voluntarily expanded the scope of this search to index records that had been created up to 1980. Turner & Newall gathered these documents from their UK headquarters and subsidiaries and placed them in a single repository in Manchester. This archive was situated at 21 St Mary's Parsonage in the city centre, though it was later transferred to T&N's registered offices at Trafford Park.

T&N did not disclose this large repository to plaintiffs in Britain, though its existence and contents slowly began seeping out. This was largely due to the rising tide of US property litigation after the mid-1980s, when T&N were sued for the removal from buildings of its asbestos products, such as boards and sprayed coatings. The plaintiffs in these actions were usually banks, insurance companies, or educational authorities, which could afford to spend heavily on legal fees and document searches. The first significant suit was brought in 1986 by the Prudential Company of America for $86 million damages against Turner & Newall for the removal of sprayed asbestos from its office block in Boston, Massachusetts. Prudential lost the case on a technicality in 1992, though not before Patrick Guilfoyle, who acted for the insurance company, had begun the process of opening up the repository for plaintiffs. However, the case went largely unnoticed in the UK and the cache of documents did not receive widespread publicity.

By then T&N faced a major property claim from Chase Manhattan Bank. The action was for the removal of sprayed asbestos fireproofing, which had been applied to Chase's 60-storey skyscraper when it was built in 1959. Chase decided to begin removing the asbestos in 1986, because of the perceived danger to maintenance workers and its office staff, and in the following year filed a $185 million damages suit against T&N. In 1991, Chase lawyers, led by their legal vice-president Michael O'Connor, won a major discovery ruling that gave the Bank sweeping access to all T&N's documents relevant to the asbestos hazard. Chase attorneys and a copying team immediately travelled to Manchester to examine the T&N archive and duplicate any relevant papers.

With so much at stake, Chase were prepared to spend heavily on building their case. The Bank's search of the T&N archive was therefore far more comprehensive than anything that had been attempted previously. Extensive searches were conducted not only at St Mary's Parsonage, but also at T&N's headquarters and its old Rochdale factory (where O'Connor sifted through dusty basements). Anything that was deemed relevant was copied onto microfilm or fiche for more detailed review in New York. Hard copy was also created and numerous witnesses were deposed. In describing this whole exercise, business historians—grubbing around on inadequate research grants and salaries, and with their work frequently hindered by secretive companies or the procedures and rules of official archives—can only envy the resources that a major multinational can throw at such a case. The Bank expended $1 million in the search for relevant information.

Chase was not only able to use the T&N material to prepare its courtroom

contest, but it was also allowed to use the documents more widely. In America, trials are public events and litigants have a constitutionally protected right to disseminate documents as they see fit, unless the courts decide to impose a protective court order (which is rarely the case). In Chase v. T&N, no protective order was placed on the bulk of the archive, so that Chase was allowed to disclose records to third parties.[15] It should be stressed again that such disclosure would be impossible under English law. The ruling was naturally exploited by Chase to publicize its case and impugn T&N's past conduct. O'Connor began sending large bundles of key T&N documents to the media, lawyers, doctors, politicians, victims' action groups, and historians. Much of this material was sent to Britain, where it had an immediate impact. Radio and television documentary makers used the material to take a fresh look at the history of the asbestos hazard. This proved a severe embarrassment to T&N, especially since it destroyed the company's contention that its archive material was scanty or inaccessible. Thus O'Connor's sharing of the archive proved crucial in several successful British personal injury cases against T&N (although Chase's own action against the asbestos producer was dismissed by a New York jury in December 1995).[16]

Using the Chase/T&N Archive

The window on the T&N archive only opened briefly. The original documents remained in the company's possession at Trafford Park, but with many more personal injury cases pending the archive seems to be as inaccessible as ever to the public.[17] Moreover, in 1997 T&N was purchased by the American engineering firm Federal Mogul—a take-over that, ironically, was financed by a bridging loan from Chase Manhattan Bank. The flow of T&N records from Chase soon ceased. However, the large quantity of documents disseminated by O'Connor before the trial continued to seed research and investigations into T&N's history. In particular, the Manchester Metropolitan University set of Chase/T&N records—apparently the only complete collection in Britain, apart from the originals—remained available. The confidentiality of the records had been lost during the trial and, although T&N still holds the copyright on certain documents, they can be used and cited without an individual being in contempt of court.[18] In other words, the records are in the public domain.

[15] Relatively few T&N records remained confidential during the trial. These were either 'privileged' documents (such as letters between T&N and its lawyers) or related to confidential commercial matters.

[16] For a useful discussion of the Chase trial, see V. Titunik, 'Chase's Case Turns to Dust', *The American Lawyer* (May 1996), 73–80. The most detailed account can be found in the 1,500-page court transcript: Chase Manhattan Bank v. T&N (87 Civ. 4436, Judge J. G. Koeltl), US District Court, Southern District of New York, 27 October–6 December 1995.

[17] In a recent exchange in *Medical History*, one historian has credited T&N with giving him support and 'unrestricted access to its archive'. See M. Greenberg and N. Wikeley, 'Comment: Too Little, too Late? The Home Office and the Asbestos Industry Regulations, 1931: A Reply'; and P. Bartrip, 'Rejoinder', *Medical History*, 43 (October 1999), 508–10, 511–13. However, it remains to be seen whether such terms of access are extended to all researchers.

[18] Of course, *publication* of the records in the UK is still subject to copyright and libel law. The publication of *Magic Mineral to Killer Dust* was delayed a year, while various university and publisher's

A key feature of the Chase collection is its sheer bulk. In order to enter this 'universe' of documents and utilize them fully, therefore, some familiarity is needed with the way Chase generated its copy of the records.

Chase estimated that T&N held some eight million document pages, with about two million at the St Mary's Parsonage repository. Not all of these were relevant to the New York trial and therefore the Bank only copied a proportion of the records—about a million pages. This material was taken to New York on microfilm, fiche, and hard copy as follows:[19]

Microfilm	225 reels (approximately 2,000 frames each)
Microfiche: Board Papers, 1944–67	1,608 sheets (each sheet is 4 × 7 inches, containing 60 frames)
Microfiche: 'G' Series files	842 sheets
Hard copy documents	12 boxes (approximately 24 linear feet)

The bulk of the health and safety material on asbestos—including most of the key exhibits that were used in the New York courtroom—was copied onto the microfilm. This represented the fruits of Chase's visits to the T&N repository in the autumn of 1991. When O'Connor and his team arrived at St. Mary's Parsonage, they found that the material had been gathered into over 260 file drawers and over 100 linear feet of shelving. Watched over by T&N 'minders', they systematically worked their way through this material, copying onto film anything that looked relevant to their case. This job was made considerably slower by the arrangement of the documents: although not entirely random, the material was not filed in an organized or chronological sequence.[20]

With no time to organize and sort the material themselves, Chase's efforts became a mirror image of T&N's haphazard filing system. Thus, the Chase films present a vast haystack of material that is extremely difficult to navigate. An individual reel can contain letters and files on a dozen or more separate subjects, all at different dates. For example, a run of records on dust control in the 1930s can be followed within a few frames by a set of medical papers from the 1980s. Reading the microfilms can therefore be a fascinating exercise: one simply has little idea of what will turn up next.

But how is one to find material on these films? For Chase, in particular, it was essential that records could be retrieved quickly. To achieve this, as each page was

lawyers and counsel haggled over these matters. However, 'fair use' of such records is allowed and in English law the public interest in preserving the confidentiality of documents can be over-ridden by a stronger public interest in the disclosure of their contents (see Lion Laboratories v. Evans, 1985). Such a predominant public interest in disclosure would almost certainly apply to the T&N documents.

[19] Courtesy of Michael O'Connor, the Wellcome Trust and Manchester Metropolitan University were able to obtain the complete set of Chase microfilms and fiche, plus a selection of the hard copy (such as the printed T&N annual reports). Chase also provided computer and hard-copy listings, which are discussed below.

[20] The disordered state of the documents reflected the fact that T&N had no formal archive. Of course, defendant firms are not obliged to make things easy for their opponents in litigation. For an interesting discussion of the tactics of the tobacco industry when faced with 'discovery', see P. Pringle, *Dirty Business: Big Tobacco at the Bar of Justice* (London, 1998).

copied onto film, the reel was numbered and so too was the document.[21] So that subject areas and documents could be identified further, Chase compiled a computerized listing for the microfilm records. The listing is in Microsoft Word 6 for Windows; it is split into ten separate files; and the length of the list is about 150,000 words (about 700 pages of fine print-out). This is the main finding aid for navigating the material.

Chase's computer listing presents the viewer with a straightforward list of T&N records and where to find them on the microfilms. Thus the first item in the Chase sequence is described as follows:

1 1 C 84 Bell Asbestos Mines Agreements and various correspondence 1939–1979

2/912: RRE—10/02/91—1/A-1: Corp. issues re: leases, land, etc; copying correspondence on mortgage to show T&N keen eye for detail.

The digit '1' offset to the left is the T&N file drawer in which the documents (relating to Turner & Newall's Canadian asbestos mines) were found. 'RRE' are the initials of the Chase attorney and '10/02/91' shows that the material was reviewed and copied in October 1991. The key Chase reference is '2/912', which shows that the documents can be seen on microfilm reel 2 at frame 912. In this case, the attorney has given a brief description of the records and has also commented on the significance of the records. By reading this list, one can not only find documents, but also follow some of the excitement of the attorneys as they turn up 'smoking guns' and 'hot' documents.

It should be stressed, however, that the Chase computer files are neither comprehensive nor are they an *index* of records—they simply *list* items. This is not a great disadvantage in practice as Word 6 allows word searches. A trawl of the Chase list using the key word 'Bell', for example, will soon locate the records above and any others relating to Bell Asbestos Mines. On the other hand, only groups of records are described: individual items within the groups are usually not categorized unless their significance is very great. This means that a keyword search has its limits. Moreover, not every T&N item that appears in the Chase list is on the films. Occasionally, 'NS' or 'NC' appears alongside records, indicating that the material was not shot or not copied. A final drawback is that the Chase list only covers the first 150 or so films; it does not cover the following 70 or so.[22] Nevertheless, Chase's efforts to list the records are a great help and their computer disk offers the best way into the records.[23]

During the course of researching these documents after 1996, I scanned every

[21] The reel number and frame reference appear at the top of each document page on the microfilm. It should be noted that Chase did not number its films consecutively. There are gaps in the sequence, so that the reel numbers run as follows: 1–86, 101–130, 150–162, 200–234, 300 (a & b)—308, 350–361, 400–402, 410–419, 500–509, 600–609, 700–704.

[22] In practice, this means that in the Chase numerical sequence, any film after about reel 300 is not listed on the computer disk.

[23] T&N had meanwhile devised its own hard-copy listing of the records (and a version on CD-ROM). It is not publicly available, but courtesy of an American personal-injury lawyer I have seen a copy. It is very similar to the Chase listing.

reel of the Chase collection. Although the legibility of the records is usually very good, this method is not to be recommended for those wishing to avoid the occupational health hazards of backache and eye strain. However, it has enabled the Chase listing to be supplemented by more traditional findings aids. A basic card file has been assembled, which notes some of the more important documents and also lists the location of the many secondary sources on the films (such as journal articles). In particular, an index of cards has been created for the hundreds of compensation claims made against T&N. Each card logs the name of the individual, and the location of his/her file on the films, alongside some basic details of the case. About a thousand claims cards have been compiled so far, but there are some 400 or so files still to be read—an indication of the size of the asbestos health problem at T&N.

The Chase microfiche collection is more logically ordered. Essentially, the records copied by the Bank onto fiche were T&N's head-office files. These include a continuous run of board papers (i.e. the reports from managers and subsidiaries that were presented at each board meeting) from the 1940s to the 1960s. There is also a large miscellaneous collection of office files—the G-series. Relatively few of these records relate directly to health and safety. Some of the originals seem to be carbon copies, which makes them more difficult to read than documents on the film. Again, Chase compiled a basic hand list for this material, though this time they produced only a hard copy.

Before searching and consulting the records, a final point should be stressed. As I have already indicated, not everything was copied from the original records by Chase,[24] who were obviously preparing a court case. This needs to be stated, because it introduces the question of selection bias. Chase clearly ignored some records as dross—the kind of ephemera found in all large collections of records. Some records they found to be duplicative; and others they did not regard as containing any significant occupational health information. Some of Turner & Newall's commercial papers were not copied (though all were reviewed by Chase attorneys), especially before the 1920s; and other material was copied only selectively for its information on asbestos disease. Thus it could be frustrating for an economic historian to find that Chase did not copy the Rochdale firm's nineteenth-century minute books and only copied those pages discussing asbestosis in the post-1920 volumes. However, this is hardly a serious limitation on the usefulness of the Chase collection as an historical resource, at least as regards occupational health. Generally, Chase's copying exercise was awesomely thorough and comprehensive. Most documents and reports were copied in their entirety, even if the health information was slim. Not only was Chase's remit to copy any evidence that could be directly useful in the trial, but they also widened their copying to include documents (such as commercial reports, conference proceedings, and published

[24] It can be noted here that T&N's American lawyers, who were defending the case, were allowed to remove 'privileged' files from the archive. Their absence is indicated on the Chase film by a blank frame and a marker card. Relatively few documents were removed in this way and, in any case, most of these were later produced before the trial to Chase in hard-copy. Unfortunately, these hard-copy files were not obtained from Chase by Manchester Metropolitan University (though occasionally they were copied onto the film).

journal articles) that provide the economic and social context for asbestos. It is this thoroughness, developed at great expense by the Bank, which makes the collection so valuable.

T&N Documents as an Historical Source

In order to understand the value of these records, it is only necessary to review what would have been available if Chase had never gone to court. Although the government classed asbestos as a dangerous occupation as early as 1931, records on the subject are scanty. The 1931 legislation left only a relatively small number of records in the Public Record Office (though those relating to later regulation in the 1960s have now become available). However, Factory Inspectorate records do not appear to have been retained in any abundance. The government's Medical Board, whose doctors examined those workers who came within the medical scheme, also destroyed its case files. The government published basic medical statistics on the asbestos industry, but the story behind those statistics has been hard to discern.[25] Compensation in the asbestos industry was largely handled by individual companies and, although many common law claims were made after the 1960s, the information was privately held by companies or plaintiffs' solicitors. Professional and scientific bodies that were involved with asbestos were either controlled by the industry (such as the Asbestosis Research Council) or had a policy of keeping their records confidential (such as the British Occupational Hygiene Society). Meanwhile, no archive has ever been produced in litigation by any of the other leading asbestos companies, such as Cape and British Belting & Asbestos. Thus whole swathes of material relating to the asbestos health hazard had been either destroyed or were off limits, making it difficult to assess the impact of government regulation, company strategy, the role of the medical community, and major trends in asbestos disease. These are precisely the areas where the Chase/T&N material is strongest.

Commercial Records

As one Turner & Newall director put it so forcefully in the late 1960s: 'this is a business—not just an opportunity to practice medicine and carry out research'.[26] In other words, making asbestos was the company's main purpose; the medical aspects were secondary. Until after the 1960s, asbestos was one of the most successful of all British industries. Based on a naturally occurring mineral, mined at slave-labour rates in countries such as South Africa, and satisfying a demand that simply kept on growing, the industry was immensely profitable. Any discussion of the asbestos health hazard should therefore begin with a firm grasp of the commercial and technical development of Turner & Newall. Here the company records are extremely voluminous. The printed T&N annual reports (in hard copy) provide a

[25] The Ministry of Labour & HM Factory Inspectorate published a run of asbestosis and cancer statistics in its *Annual Reports of the Chief Inspector of Factories* (London, annually). Each report usually contains a page or so on occupational health in the asbestos industry.

[26] 73/1696. D.W. Hills note, 22 August 1968.

good starting point for basic information on the company, relating to its capital, profits, subsidiaries, and corporate strategy. However, this is only the starting point. On fiche, the main board meetings and papers survive in a fairly continuous run from the end of the Second World War until the end of the 1960s. These contain overwhelming detail on the company's commercial operations and decision-making. Information can be found on employment, capital, profits, company reorganizations, and taxation. Statistics are aggregated and also broken down into the contributions made by the numerous unit companies, both at home and abroad. Not all of the material relates to asbestos, as T&N from the 1950s had begun to diversify into other products such as plastics and fibre glass.

The G-series files are less numerous, but provide documents on some of the fine points of the company's administration. Amongst the subjects covered in this series are: directors' appointments and resignations; patents, trademarks, and licences; articles and agency agreements; administrative instructions; accounting and finance; and government committees (such as the 1973 report on the social conditions of black workers in South Africa). Much work remains to be done on T&N's commercial history, particularly in disentangling its complex corporate structure and how this related to its use of a hazardous material.

Occupational Health: Turner & Newall Internal Documents

When did Turner & Newall first engage seriously with the problem of asbestos-related disease? It is difficult to give a precise answer, but certainly by 1924 at the latest the company realized that the mineral could kill. In that year, an inquest on one of its Rochdale workers showed that asbestos caused lung scarring similar to silicosis. Within five years, after many more deaths in the industry, the government was planning health and safety legislation. Henceforth, the company was expected to provide adequate dust control, medical monitoring, and compensation. All these activities generated records, many of which are extant. The company's first Asbestosis Committee Minute Book (copied in full by Chase) documents its compensation and medical strategy between 1931 and 1933, when Turner & Newall began implementing the asbestosis regulations.[27] The subsequent minute books are not available, but the annual reports of the Asbestosis Fund (the company's private insurance scheme) provide important statistics on asbestosis suspensions, compensation, and medical costs.[28] At this time, the Rochdale factory appointed its own part-time health physician, Dr W. H. Bateman, whose letters and reports provide revealing information about factory conditions at the various Turner & Newall plants. Commercial Union, the insurers, were recruited to advise the company on its dust control programme. One of its reports gives graphic details of the dangerous and dusty conditions faced by the firm's Rochdale asbestos textile workers.

After the Second World War, Turner & Newall increased the level of medical

[27] 43/271. Asbestosis Committee Minute Book, No. 1, 1931–33.

[28] The Asbestosis Fund reports are contained in the board papers (usually towards the end of the year) and can therefore be located on the fiche. Reports for most years between 1944 and 1957 have been located, though the series ends after that, with only the Fund report for 1964 apparently extant.

surveillance. Whatever its weaknesses, this monitoring—which only applied to a minority of workers 'scheduled' under the 1931 legislation—has left a large number of records. At Turner Brothers Asbestos in Rochdale, a Health Committee began meeting regularly after 1950. By then, the company had a permanent medical officer, whose reports survive in a reasonably complete run from the late 1940s (though there are significant gaps). The papers of Dr Hilton Lewinsohn, the company's chief medical officer between 1966 and 1976, are especially voluminous. These reports provide important information on how the company dealt with the growing asbestos health crisis, once mesothelioma was identified as a threat not only to Turner & Newall workers, but to those in other sectors of industry.

The company's internal documents continue to shed light on the health hazards at the company into the 1980s, when T&N retained a number of consultants to examine working conditions at its UK and overseas plants. For example, Dr Peter Elmes (once head of the Pneumoconiosis Research Unit) wrote several surveys of Turner & Newall plants in the late 1980s, including Turner Brothers Asbestos in Rochdale. Interestingly, these reports discuss a variety of workers' health issues, such as dermatitis, Legionnaire's disease, and noise levels.

Occupational Health: Government Regulation

Government regulation was often cursed by the industry, but it has left us with many letters, memoranda, and reports, which give an insight into the government's thinking on asbestos disease and the degree to which it was prepared to implement its own regulations. The archive is particularly rich in correspondence between the Home Office and the asbestos firms during the formulation of the 1931 legislation. Tension between the regulators and the industry is apparent at every level, with the government attempting to formulate a set of proposals that could be enforced and the industry keen to avoid the 'dangerous trade' tag and extra expenditure. Thereafter, Turner & Newall and the other asbestos firms intersected with the government at several key points: medical monitoring, compensation, and dust control. The Medical Board, which was responsible for suspending sick workers and certificating asbestos deaths, may have destroyed its files, but enough of its correspondence has survived in the T&N archive to make some assessment of its policy. This was sometimes supportive of the worker through its confidential system of medical examination, but it was also highly attuned to the needs of the industry.[29] The degree to which the government was prepared to enforce the regulations can also be gauged to a certain extent through the Factory Inspectorate's letters to Turner & Newall. Perhaps the most revealing documents concern the shipyards, where the company's insulators worked in conditions that were evidently far from ideal. Interchanges of letters between the company secretary, John L. Collins, and the Factory Inspectorate in the 1940s and 1950s on this question say much about levels of regulatory activity in the industry and T&N's

[29] G. Tweedale and P. Hansen, 'Protecting the Workers: The Medical Board and the Asbestos Industry, 1930s–1960s', *Medical History*, 42 (1998), 439–57.

attitude to workers' health. The records show a sparring match between a government trying to enforce and slightly extend the modest scope of the 1931 legislation and a company that always argued that its safety precautions were adequate and well within agreed official guidelines. The regulatory contest can be followed through the 1960s (when the government belatedly began revising the 1930 guidelines) and into the 1970s, when T&N made key submissions to a number of government enquiries (such as the Simpson Committee).

Technical Issues

All aspects of asbestos manufacturing technology are covered in the archive, from the manufacture of asbestos textiles to asbestos cement. The information on technical processes is found scattered in sales brochures, company manuals, catalogues, and internal reports. These show that, in technical terms, the manufacture of asbestos represents a paradox: it was a nineteenth-century product that was produced by traditional (even crude) methods until at least the 1970s. Yet controlling asbestos dust eventually demanded highly sophisticated monitoring and dust-counting technology.

The development of dust-counting techniques—crucial to the question of how fibre levels related to disease—is well covered in the archive. Most of the documents were produced in the 1960s and 1970s, when the government and the industry began for the first time to formulate a quantitative measure for dust control. This resulted in the physicists at Turner Brothers Asbestos producing endless dust counts in various parts of the organization. The count-data have often been preserved. Interestingly, in the 1960s and 1970s the company's dust-counting was also extended to buildings, which contained asbestos; to brake-linings, which shed fibre into the general atmosphere; and to beverages, such as beer and wine, which were often filtered through asbestos. More ominously, the archive includes dust-counts relating to asbestos users (such as the shipyards), which confirmed that the dangers of the fibre were not confined to the asbestos factories. Other aspects explored by the company's scientists were the efficiency of respirators; the usefulness of substitutes for asbestos; and the technology of the spray process (known as 'Limpet'). Chase Manhattan Bank were particularly interested in asbestos spraying, since this was how Turner & Newall's asbestos had been applied in New York.[30] Chase, therefore, copied an enormous amount of material on spray: commercial literature, overseas data, government reports, photo albums, and dust-counting trials.

Turner & Newall Subsidiary Companies

Turner & Newall has been recognized by business historians as one of the first British companies to adopt a multi-divisional structure. It had a central headquarters (Turner Brothers Asbestos in Rochdale), where major decisions were made, but the company was split into a number of divisions and unit companies,

[30] See G. Tweedale, 'sprayed "Limpet" Asbestos: Technical, commercial, and Regulatory Aspects,' in G. Peters and B. J. Peters (eds.), *Vol. 20 of Sourcebook on Asbestos Diseases* (Charlottesville, VA, 1999, 79–109.

which made their own day-to-day decisions. The main subsidiaries were: Turners Asbestos Cement at Trafford Park; J.W. Roberts in Leeds; Washington Chemical Company and Newalls Insulation, based in County Durham; and Ferodo in Chapel-en-le-Frith. The extent to which each of these companies had their own archive has been contested by T&N. Certainly, the patchy survival of records from these firms suggests that they did not make record-keeping a priority. However, many important documents from the subsidiaries were evidently copied to Turner & Newall's Rochdale and Manchester offices. Moreover, the Chase discovery process revealed that certain key documents had survived. These included a complete run of minute books for the local board meetings of the Washington Chemical Company and Newalls Insulation. These run from about the 1930s to the 1980s and cover all the subjects that one would expect to find in board minutes, from the routine to the important. In particular, they document asbestos deaths and also log the visits of the Factory Inspectors. Chase copied the complete set of books and these fill several film reels of the Chase collection. Happily, the Washington volumes are indexed. Roberts' records have also survived in some profusion and the health history of that company can be pieced together from a variety of letters, directors' reports, and mortality surveys.

Overseas Companies

Turner & Newall was not only a multi-divisional company, but also a major multinational. Its business depended on fibre provided by its own asbestos mines in South Africa and Canada; and abroad it also manufactured asbestos textiles, asbestos cement, and brake-linings. Its operations spanned most of the major industrial nations: North and South America, South Africa, Germany, Italy, India, and Australia, to name only a few. In addition to its subsidiaries, it also had an extensive licensing system, especially for its automotive products and spray.

Tracking the health history of these subsidiaries can be a frustrating exercise. Much of the information on them in the board minutes is commercial and other records are lacking (see below). The archive is particularly rich in overseas trip reports that were compiled by the company's directors between the 1930s and 1970s. North America was a favoured destination, because the company owned the Bell Asbestos Mines in Canada and a manufacturing plant in Pennsylvania (Keasbey-Mattison). Company chairman Walker Shepherd alone generated more than a dozen lengthy reports to the board, which document his wheeler-dealing in America and Canada during the 1930s and 1940s. However, none of these trip reports mention asbestos-related disease. Most of the materials relating to the asbestos hazard begin only in the 1970s, when Turner & Newall began a health review of its overseas subsidiaries. None the less, what has survived is highly significant. The company's health physicians, such as Dr Lewinsohn, visited Canada, South Africa, and India in the 1970s, where they confirmed T&N's poor health and safety record. Turner & Newall also sponsored epidemiological studies of its workforce in South Africa and retained leading chest physicians, such as Peter Elmes, who reported on the company's African and Indian plants in the early 1980s.

Compensation Claims

One of the largest categories of documents in the archive—and one of the most useful—relates to compensation. Again, government regulation, while a nuisance for an industry, has been a godsend for the historian. As each asbestos worker was suspended as unfit by the Medical Board or a common law writ was issued, the company was obliged to open a compensation claim file. Most of these files have survived—at least 1,500 in total—running in a continuous sequence from about 1930 up to the 1990s and covering every Turner & Newall operation in the country. The files vary in bulk, but most contain enough detail to provide a complete profile of each worker. A file typically contains the worker's employment record (with details of wages, sick leave, and number of medical examinations), his or her formal claim for compensation, and the company's response and levels of payout. Crucially, the files often include autopsy reports, inquest proceedings, legal depositions, death certificates, and Medical Board certificates and correspondence. Frequently, the files contain communications between Turner & Newall's employment managers and Commercial Union. The company's general policy towards asbestos disease and workers' compensation can be ascertained in these documents. Compensation payments and mortality can also be assessed.[31] The files occasionally shed light on the attitude of workers themselves, as it is not unusual to find personal letters to the company. Sometimes, too, a worker's death generated correspondence with solicitors, as the worker's dependants pressed their claim.

In the 1980s, the tenor of these claims changes dramatically. Before then, claims were usually made under the state's compensation scheme and were relatively few. However, after 1980, legal reforms and the prevalence of mesothelioma caused a relative explosion in the number of claims against Turner & Newall. The bulk of these were common law claims, which made asbestos disease as much a legal problem as a medical one. Individuals' files in the archive become not only more numerous, but also more voluminous. Correspondence with solicitors becomes routine; there are writs and medical reports, outlining the plaintiff's case against the company; and working conditions are often documented, sometimes as far back as the 1940s, in an attempt to prove the company's negligence. Often the files tell a complete life story, from an early working life in asbestos to the early symptoms of respiratory disease, followed by a harrowing mesothelioma death and then the final scenes at the mortuary or inquest. These claims files must be amongst the most tragic documents in British industrial history. They also appear to be unique. Companies rarely, if ever, grant access to such files; and there is no central legal repository of such cases. Solicitors often destroy their old files once a claim is settled.

Medical Statistics and Research

One of the most striking features of the T&N archive is the thorough way in which the company collected medical statistics (at least for those individuals in the

[31] G. Tweedale and D. J. Jeremy, 'Compensating the Workers: Industrial Injury and Compensation in the British Asbestos Industry, 1930s–1960s', *Business History*, 41 (April 1999), 102–20.

'scheduled' areas of its main factories). Aside from the material available in the claims files, the company routinely analysed medical suspensions and deaths from asbestosis and cancer from as early as 1930. By the early 1940s, detailed reviews of the asbestosis problem were requested by the directors. At this time, the company had launched a modest programme of medical research, partly in concert with American firms at the Saranac Laboratory in New York. Correspondence with Turner & Newall's American branch, Keasbey Mattison, adds more information to the story of how the asbestos companies first realized that their product caused lung cancer and then tried to suppress the knowledge. By the 1950s, more statistics on lung cancer were collected by the Rochdale company physician, Dr John Knox. The analysis was conducted by Richard Doll. Knox's initial work, his correspondence with Doll, and the company's adverse reaction to the proposed publication of the research are all detailed in the archive. When Doll took over and continued this research, the analysis became more sophisticated, generating highly detailed listings and computer print-outs of workers and their causes of death. This was part of a collaborative project with Richard Doll and his Oxford team of statisticians that continued into the 1980s. Some of the subsidiary companies, such as J.W. Roberts and Newalls, also produced hand-lists of asbestosis/cancer cases. These are often incomplete, but they are invaluable for assessing the fate of individuals and the extent of asbestos disease at the company.

Corporate and Professional Organizations

Of the trade and professional organizations that appear in the archive, two are of key importance: the Asbestosis Research Council (ARC) and the British Occupational Hygiene Society. The ARC was founded in 1957, as an industry-controlled body that aimed to protect workers' health by researching asbestosis. Although it was funded by a trio of firms—Turner & Newall, Cape Asbestos, and British Belting & Asbestos—the ARC had a London office that, to a certain extent, distanced it from the industry. The whereabouts of its archive (if it had one) is unknown. Fortunately, there is a large pool of papers on the ARC in the T&N archive. These include typescripts on its history and research output; annual reports; a good collection of ARC Research Committee minutes between 1957 and 1990; and minutes for its dust control and management committees. There is also information on the ARC's financing and progress-reports on work that was funded at places such as Reading and Edinburgh universities. The ARC also published a series of guides on how to work safely with asbestos and these too were copied by Chase. Arguably, the ARC had a political as well as scientific agenda, and it was well to the fore in efforts to limit the scope of government regulation and to fend off media attacks.[32] Here the ARC was intertwined with the industry's more overtly propagandist organization, the Asbestos Information Committee (AIC), which had been established in 1967. As one of the its main backers, Turner & Newall was heavily involved with the AIC, which aimed to show the public

[32] G. Tweedale, 'Science or Public Relations?: The Inside Story of the Asbestosis Research Council', *American Journal of Industrial Medicine*, 38 (December 2000), 723–34.

that asbestos could be used safely. Again, AIC minutes, reports, and publications are contained in the T&N archive.

The British Occupational Hygiene Society (BOHS) was also prominent in the debate over the dangers of asbestos in the 1960s and 1970s. This organization was not funded by the industry—it had been started in 1953 as an independent meeting ground for all occupational health professionals—but Turner & Newall physicians and technologists were amongst its members. In the late 1960s, the BOHS became drawn into government and industry attempts to set a safe fibre threshold for asbestos manufacture. The level of this threshold became a source of controversy amongst industrialists, physicians, and workers on both sides of the Atlantic. Many of the BOHS letters and reports from this era have been preserved in the archive.

The Media

The Chase/T&N archive provides illumination on so many key areas that listing them all would be an endless task. However, perhaps mention should be made of the role of the media. Inquisitive journalists working for newspapers and the television are always an embarrassment to companies producing hazardous materials. Turner & Newall's prickly relationship with the media began in the late 1920s, when the details of asbestosis inquests were so inconveniently reported in the press. The industry's greatest problems with the media began in the 1970s, when mesothelioma showed its hand and the industry had to deal with a number of controversies and health scandals. These included the debate over a safe threshold for asbestos (1976), worker deaths at Cape's factory at Hebden Bridge (1976, 1982), environmental deaths at J.W. Roberts (1994), and the Chase trial (1995). These events generated more than half a dozen television documentaries alone, aside from adverse press coverage. T&N's reaction to this criticism is often documented in its archive, through television transcripts, press releases, and directors' correspondence. Yorkshire TV's 'Alice—A Fight for Life,' a two-hour documentary on the asbestos hazard that was screened in July 1982, had the greatest impact. The depth of the public reaction can be gauged by the thick files of correspondence on 'Alice' that remain in the T&N archive.

Published Materials

It should be stressed that the T&N archive is not simply rich in unpublished materials; it also contains a vast treasure-trove of *published* items. Some of these relate directly to the company. The archive contains a complete, if short, run of the Rochdale company's house journal *Asbestos*, which appeared in 1918.[33] There are historical materials in abundance, with published histories (or printed historical brochures) on most of the company's main factories.[34]

[33] Chase did not film the company's subsequent and more useful house journal, *Firefly*, 1952–68. However, the British Library has a complete set.

[34] The company's house history was published in 1970, though medical historians should not consult it for enlightenment about occupational health. It mentions asbestosis only once. See *Turner & Newall Ltd: The First Fifty Years 1920–1970* (Manchester, 1970). Chase also copied the lengthy typescript on which this publication was based. It was the work of the late L. T. C. Rolt, a well-known industrial historian, who was recruited by the company's public relations department.

Predictably, Turner & Newall acquired a library of books, articles, government reports, and press cuttings relating to the asbestos industry and asbestos disease. Many of these were copied by Chase. Thus the microfilm contains not only the story of Turner & Newall's direct involvement with asbestos disease, but also much of the medical and social context. Amongst the thousands of such items, the numerous articles from medical journals may be mentioned. These, of course, can be obtained from libraries. However, finding them copied onto the films is a considerable convenience.

Lacunae

Plaintiffs' lawyers can be an ungrateful lot; so too can historians. The T&N archive may be vast, but anyone who works with it extensively will soon notice gaps in the records. Not all of these gaps are due to Chase's copying policy: in fact, the Bank was disappointed to find that some key records were not extant.

Perhaps the most noticeable hole in the collection is the absence of any personal or company papers relating to the company chairmen. Chase's search of T&N discovered little of substance for Samuel Turner II (1840–1924)and Samuel Turner III (1878–1955). In the entire T&N archive, only a handful of personal letters can be found for these men. To be sure, they attended and made policy statements at board meetings, the minutes of which they often signed. But more personal documents are rare. Similarly, the Chase trial produced very few files for chairman Ronald Soothill (1898–1980) or that major business strategist at the company, Walker Shepherd (1895–1959). This has meant that the historical spotlight (and judgement) inevitably falls on the middle managers or health officers—men such as John Collins, the company secretary, or John Knox, the chief medical officer. We know that these individuals did not make corporate policy, but any discussion of the actions of the people above them must necessarily be limited by the lack of documentation.

There are other lacunae in the T&N archive. There is remarkably little material relating to T&N's allies and competitors, such as Cape Asbestos. Trade union records are scanty before the 1970s, though this probably reflects the level of union activity. Not all health matters are covered comprehensively. The Chase lawyers were disappointed to find that TBA Health Committee minutes were missing for several crucial years in the late 1950s, when mesothelioma was discovered, though they had survived both before and after certain key dates. Perhaps the biggest gap in the collection concerns T&N's overseas subsidiaries in Africa and North America, as little material on asbestos disease is available before the 1970s. The records of Keasbey-Mattison and Bell Asbestos Mines do not seem to have survived. For Keasbey, only the directors' American trip reports are extant, alongside a large body of commercial material relating to the company's sale in 1963. These are highly detailed, yet they hardly ever mention asbestos disease—a surprising fact when one considers that asbestosis was rife at Keasbey since the 1930s.

The 'holes' in the archive are a reminder that printed and manuscript records can only tell part of the story. A review of written records can only reveal what was

committed to paper, not all of what might have been known at the time or expressed by word of mouth.[35]

Conclusion

Enough has been said to show that the Chase/T&N collection is a major resource for the study of industrial health and safety. Chase Manhattan Bank's attorneys succeeded in bringing firmly into the public domain the biggest corporate archive in the asbestos industry. Indeed, the T&N archive must be one of the largest historical collections available for a firm in any British industry. Now that the veil of secrecy has been lifted, it is hoped that British academic institutions will continue to keep these records in the public domain and make them available. If so, the Chase collection should prove indispensable in any historical assessment of asbestos and in public policy debates about industrial hazards.

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[35] There is at least one reference in the archive to discussions about asbestos disease being kept off the record, because of their sensitivity. See 72/390–1. Chief medical officer Hilton C. Lewinsohn's letter to Turner Brothers' Rochdale directors, 23 November 1967.