# RETAILING SCANDAL: THE DISAPPEARANCE OF FRIEDRICH ACCUM

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#### UNPAGINATED DRAFT — NOT FOR CITATION

Friedrich Christian Accum¹ was arguably, in the second decade of the nineteenth century, London's pre-eminent public chemist. His popularizing books sold in their thousands, while his lectures attracted noble patrons including the Duke of Northumberland. Customers for his chemical apparatus included John Dalton of Manchester and John Gorham of Harvard, and several of his pupils held influential appointments, notably Benjamin Silliman, Sr., founding professor of chemistry at Yale, and his fellow Americans James Freeman Dana and William Dandridge Peck. At the end of 1820, however, Accum's reputation underwent a stunning collapse, as he was indicted on the extraordinary charge of mutilating volumes in the library of the Royal Institution; unable to bear the ensuing publicity, hostility and loss of character, it appears, he fled Britain never to return.

Accum's place in historical discussion of early nineteenth-century chemistry has usually been marginal at best; where he is afforded a significant role, it is often that of martyr. Months before his indictment, Accum had published the *Treatise on Adulterations*, a sensational bestseller alleging widespread fraud and toxic contamination of food and drink. Accounts guided by the interpretation of Frederick Filby (1934, esp. 19) suggest that Accum's fearless programme of chemical investigation and public exposure angered influential (though unnamed) manufacturers, who then exploited a ridiculous technicality to ensure his downfall. In this narrative, the movement to regulate foodstuffs in the interests of public safety was arrested for thirty years by the destruction of Accum's career.

Yet careful examination of the *Treatise* shows Accum to have been highly aware of the dangers of his approach, and scrupulous not to offend powerful individuals. Like much of Accum's prodigious output, moreover, the work is less an independent investigation than a compendium of established claims, presented in a readily saleable format. While it may have protected Accum from commercial adversaries, however, this publication strategy created another danger to his reputation. Rather than using print to share original conclusions with the world, Accum appropriated the work of others to his own pecuniary advantage: in doing so, he offended against emerging professional understandings of what a chemical publication ought to be.

The incident of the library, I suggest, highlighted in strikingly literal terms Accum's status as a commercially motivated operative chemist, at a time when influential figures such as Humphry Davy were striving to establish chemistry as a source of disinterested authority. The lack of respect Accum thereafter commanded within chemical society, rather than the ire of adulterators, may be the most important factor in explaining his flight. That disappearance from the public stage, in its turn, may have served to strengthen the privileging of "pure" (original and professedly non-commercial) chemical research as a source of credibility (Haigh 1991), and the retrospective marginalization of commercial consultancy in early nineteenth-century chemistry.

#### Accum's chemical authorship

The son of a Westphalian soap-maker, Accum (who commonly adopted the name "Fredrick" before English audiences) became involved in chemistry at an early age through connections with the Anglo-Hanoverian Brande family, apothecaries to George III. He served his apprenticeship at the Brandes' pharmacy in Hanover and moved to London in 1793, initially to work as assistant at the Arlington Street outlet run by Augustus Brande. Accum's interest in adulteration and contamination issues probably developed in the context of the retail pharmacy. The shop also provided a gateway to the world of natural philosophy: Accum was soon working with William Nicholson, best known as an author of chemical texts, whose influence is strongly evident in Accum's subsequent career (Stieb 1966, 164-5). An early paper, published in *Nicholson's Journal*, describes chemical processes for testing the purity of various drugs and acids, with a warning against the frauds of "mercenary traders" (Accum 1798, 118).

Like Nicholson, Accum set up shop in Soho: from 1800 he retailed chemicals and apparatus from premises in Old Compton Street, while establishing himself as a commercial analyst, instrument-maker, public lecturer, and author. He served as assistant chemical operator at the Royal Institution

between 1801 and 1803, during which time the young Humphry Davy was appointed Professor of Chemistry. One of Accum's pupils around this time was William Thomas Brande, son of his former employer (James 2004). Brande rose swiftly in London chemical society, succeeding Davy to the professorship in 1813, but Accum seems to have had limited engagement with institutional chemistry: his status was vested largely in the patronage of numerous fashionable and aristocratic acquaintances.

Like Thomas Thomson in Glasgow, Accum developed specialist private training courses in parallel with public lectures aimed at socially elite enthusiasts (Golinski 1992, 260). He was apparently acquainted with, amongst others, the Dukes of Bedford and Northumberland and Viscount Palmerston, and was well known in London society: Silliman reportedly described him as the city's "pet chemist" (Cole 1951, 135; Browne 1925, 1142). Accum's published works, like Nicholson's, were calculated to appeal to a broad audience, instructional in tone but tending to address simple and familiar cases. This led to an increasing focus on domestic chemistry, and in particular on food and drink: 1820 and 1821 saw the publication of *The Art of Brewing, The Art of Making Wine from Native Fruits, The Art of Making Good and Wholesome Bread*, and *Culinary Chemistry*.

The *Treatise on Adulterations of Food, and Culinary Poisons*, which preceded these works, was Accum's greatest public success. First appearing in January 1820 as a nine-shilling duodecimo, the volume was unabashedly designed to provoke popular alarm. Most of the familiar items of household consumption, Accum alleged, were routinely adulterated, often with harmful consequences; only with appropriate chemical testing could the fraud be uncovered. On its cover, the book bore an unforgettably grisly motif of serpents, darts, and a spider devouring a fly, below a biblical quotation: "There is Death in the Pot" (2 Kings 4:40). Such lurid devices—a similarly ominous graphic decorated the frontis—were unheard-of in polite public chemical culture, and contrast strikingly with the thoroughly conventional dedication to Northumberland (Accum 1820a, [i]-ii), claimed as instigator of the project. Accum, it seems, was striving to maintain the established benefits of natural-philosophical legitimation through patronage, whilst experimenting with sensational tactics in hope of attracting a mass audience.

On the second count, Accum certainly succeeded: the initial edition of a thousand copies sold out within a month. A second, octavo edition with new material was produced very rapidly, appearing in April; two further editions, plus an American reprint and a German translation, had appeared by 1822. Accum had scored an instant hit, and his public profile as a representative of chemistry rose considerably. "Death in the Pot" was adopted in the press as his personal nickname (Browne 1925, 1034). Moreover, the book received

exceptional widespread attention, for a chemical work, from the gentlemanly periodicals which informed his intended audience (Browne 1925, 1027-34).<sup>4</sup>

The mixed responses of the reviewers, however, give us some idea of the tensions generated by Accum's approach. The *British Review*, *Edinburgh Review*, and *Literary Gazette* contained wholeheartedly positive notices, promoting Accum as a crusading defender of the public good. Others dismissed Accum's pronouncements as exaggerated, and his proposals for analytical remedy as impractical. A particularly stinging account appeared in the *Quarterly Review* (1820, 342-3):

Including [Accum], there are about twenty chemists in England; and about two millions of people who are exposed to poison by wine and custard, seven by ale and porter, and the whole population by bread, water, and small beer. Out of these, how many can have Mr. Accum at their elbow, with his hydrosulphuretted muriatic water, his filtres, his crucibles, his ammonia, his muriate of barytes, and his chemical knowledge? [...] in spite of his science and his toils, we fear that there is not one of all his numerous hearers who could perform any of Mr. Accum's experiments, simple as they are to him, even with the terrific blue book in their hands.

Accum's whole public career, in fact, may be understood as largely an attempt to repudiate this kind of objection. Accum drew his status, and part of his income, from the communication of both chemical theory and chemical practice to wealthy amateurs such as Northumberland. Brian Gee has noted Accum's involvement in the manufacture and distribution of "chemical chests," elementary portable laboratories marketed as educational toys: these were promoted through his public lectures and his many books. In *Chemical Amusement*, a volume of entertaining experiments in its fourth edition by the time of the *Treatise*, Accum assured his readers that, for the purposes of study, small samples and simple apparatus were vastly preferable to the large stocks and purpose-built spaces commonly associated with the term "laboratory" (Gee 1989, 42-3). Doubtless he applied the same claim to the straightforward, non-quantitative tests outlined in the *Treatise*; and doubtless the *Treatise* was constructed partly with an eye to sales of analytical equipment.

To the aforementioned reviewer, this was perhaps the point at issue. The reviewer's initial tone of hearty disregard gives way to sharp scrutiny of the motives behind the *Treatise*: as a commercial vendor, it is implied, Accum's concern is not to enlighten the public, but to manufacture demand for his products, irrespective of genuine need. In the final analysis, Accum is condemned less as an otherworldly theorist than as an opportunistic hack (*Quarterly Review* 1820, 347):

Mr. Accum specifies a number of ingredients, which are employed in the spurious manufacture of wines of various names and qualities: some of these sophistications are, however, not only innocent but necessary, since they are used in the wine countries to impart those qualities which are held essential to the flavour and appearance of the best wines. Mr. Accum ought to know this, if he has read the works whence his matter is extracted, for the purpose of understanding them, and not for that of filling a page and frightening his audience with a formidable array of hard words [...]

Concerning beer, Accum's knowledge "is all derived from the newspapers": hence the chemist becomes merely a mouthpiece for established rumour. Occasional reliance on the "loose statements" of the papers, as opposed to Accum's "own experience," also provides the only real criticism to be found in the *Literary Gazette*'s much more positive review.

Accum, in short, leant conspicuously towards the scissors-and-paste school of literary production—a tendency which Ernst Stieb (1966, 166) attributes to the influence of Nicholson. A passage on volatile oils, for instance, was taken verbatim and unattributed from the English edition of Caspar Neumann's works, then over sixty years old; it is not always evident that Accum brought any personal knowledge to bear in the selection of matter for recycling (Stieb 1966, 32). Even the iconic "Death in the Pot" motto was second-hand: as Stieb (1966, 299 n. 4) notes, the prefatory text which introduces it is borrowed directly from a work of 1781 dealing principally with inadvertent contamination.<sup>5</sup>

Although such unattributed borrowings are not common in the *Treatise*, much of its content consists of quotation with attribution, while most of what remains is paraphrased from other sources. Packaged (though never strictly advertised) as an unprecedented exposé, the *Treatise* in fact relies, beyond a few references to Accum's own consulting work, almost entirely on previously published material. This fact—probably unguessed by the majority of Accum's readership—must be borne in mind in assessing the risks Accum faced in publishing his account.

#### Safety in scissors and paste

The *Treatise* addresses the possible dangers of water, bread, beer, wine, coffee, tea, pepper, and a variety of similarly commonplace articles, often describing the alleged practices in some detail. For the most part, however, discussion is confined to general principles and possibilities, rather than to specific case histories. Where such histories are related, they mostly lack names, dates, or precise locations, and often concern accidental contamination, rather than deliberate adulteration. The only significant exceptions occur in the case of beer: Accum (1820a, 7-8 n., 163-5, 176-8, 186-9, 195-6, 206-9) fills numerous

pages with the names of brewers and publicans convicted of adulteration, and druggists and grocers convicted of vending adulterants to brewers.

This information had entered the public domain via the minutes, published in 1819, of an 1818 House of Commons Committee inquiry into the price and quality of beer. Certainly, in republishing the names of the guilty, Accum brought them to a much wider audience than would otherwise have been the case. It is notable, however, that Accum takes conspicuous pains to avoid generating enemies among the most powerful. Brewing in London was dominated by a handful of unassailably well-capitalised concerns producing the brown beer known as porter on an industrial scale. Insinuations that these brewers made heavy use of quassia, cocculus indicus (containing the narcotic poison picrotoxin) and other adulterants were commonplace in the satirical press, serving as a stock device to pillory prominent political figures with brewery backgrounds: Harvey Combe and the second Samuel Whitbread, both radical Whigs, appear in James Gillray's 1806 cartoon "The Triumph of Quassia." Accum (1820a, 211, 216), however, was swift to establish the most powerful brewers as a special case:

[T]here are no convictions, in any instance, against any of the eleven great London porter brewers for any illegal practice. The great London brewers, it appears, believe that the publicans alone adulterate the beer. That many of the latter have been convicted of this fraud, the Report of the Board of Excise amply shews [...] The eleven great porter brewers of this metropolis are persons of so high respectability, that there is no ground for the slightest suspicion that they would attempt any illegal practices, which they were aware could not possibly escape detection in their extensive establishments.

The identification of a reputable "great eleven," persistently mobilised in both questions and answers during the Committee hearings, in fact had little basis in production scale. The smallest of the "great" (Cocks and Campbell) achieved in 1817 less than one-tenth the output of the greatest (Barclay Perkins), and was scarcely larger than any of several ale-brewers then beginning to challenge the established porter trade (House of Commons 1818). The group of eleven was probably constructed to include those who had agreed amongst themselves not to make trouble for each other on issues such as pricing, and served to exclude upstart competition.<sup>6</sup>

Impetus for the 1818 Committee had come from a coalition of publicans, free-traders, and churchmen, who alleged that these major brewers operated a form of oligopoly, controlling the licensing system through a corrupt magistracy, maintaining high prices and poor quality, and routinely practising adulteration (Mathias 1959, 238-41). The major brewers, through their strong parliamentary representation—Charles Barclay and Charles Calvert, partners in

two of the largest firms, sat on the Committee itself—successfully subverted the aims of the petitioners, throwing their claims back upon the publicans, and upon the small brewers then being slowly squeezed out of the market. Pleading a special status in virtue of size and reputation was a key element of this strategy (House of Commons 1819, passim, esp. 35-6, 104-5). Accum's apologetic, which recites the names of all eleven in a footnote, can only have aided this agenda.

Moreover, Accum's acquittal of the major brewers actually goes beyond his sources' exonerations. His claim of "no convictions" overlooks, perhaps deliberately, a successful 1813 action against Meux Reid, then the secondgreatest brewery, which featured prominently in the Minutes (House of Commons 1819, 16-18, 20-2, 80-4). Excise officials had detected the brewery receiving covert deliveries of a banned substance, salt of tartar (potassium carbonate), supplied by the druggist and malt patentee Daniel Wheeler. The alkaline salt was apparently in routine use to conceal the effects of unreliable acetous fermentation. Though not dangerous to health, the practice was clearly unlawful and involved extensive deception; it was attacked in the Treatise. furthermore, as "the worst expedient that the brewer can practise," being liable to cause spoilage (Accum 1820a, 204-5). Comparing Accum's litany of convicted brewers with the specific lists from the Minutes cited as its sources, we see substantial rearrangement and abbreviation, with the Meux Reid case one of several to be simply excluded (Accum 1820a, 206-9; cf. House of Commons 1819, 29-31, 36-8).

Aside from brewers and their druggists, the *only* individuals named for malpractice anywhere in the *Treatise* are a single adulterating baker and a handful of tea and coffee counterfeiters, all relatively small traders (Accum 1820a, 139, 224-36, 246-60). These passages are all extracted from reports of convictions previously published in the *Times* or *Courier*; the tea and coffee cases cover just two months in 1818, and obviously constitute an illustrative sample rather than a conspectus of wrongdoers. Accum's scissors-and-paste methodology in itself, then, minimised certain dangers (specifically those of legal action); yet this, as we have seen, was augmented by significant discretion where the truly powerful were concerned.

It is nonetheless possible—perhaps probable—that Accum received some hostile representations due to the *Treatise*: these might have come from the druggists or small brewers named, or from representatives of one or other trade, acting in concert, who felt his less specific "revelations" threatened all their interests. In his second edition, Accum himself—in a passage which has been instrumental in inspiring his crusading reputation—refers darkly to "maledictions" received from certain anonymous "assailants in ambush," against whom he announced his intention to press on regardless (Accum 1820c,

x-xi). We should be aware that an identical pose was struck, in respect of "threats [...] conveyed to the EDITOR, by those immediately interested in the continuance of abuse," by the author of a 1795 anti-adulteration tract which Accum may have used as a source (*Crying Frauds* 1795, [2], italics and capitalisation original). If it is unlikely that Accum fabricated the campaign against him, it may well be that his instinct to borrow or adapt any convenient and serviceable text caused a magnification of its extent.

In the *Quarterly*'s comments, indeed, we have already seen how the *Treatise* opened up grounds for an attack on Accum's reputation in a wholly different sense: by offering hackwork in the place of original analysis, and by sensationalising his production in the interests of sales, Accum forfeited the significant respect and authority which would otherwise have been accorded to him on the basis of his connections and attainments. That this took place in connection with a work on adulteration carried dangers of its own. This we may best observe through the reaction from another literate group in a position to judge issues of authority: those small brewers to whom Accum's exemption manoeuvre did not apply.

#### The ambiguities of adulteration

Our best source on brewers' response is the 1822 second edition<sup>7</sup> of the *Private Brewer's Guide* by John Tuck, a practising brewer at the time of publication. The title, perhaps chosen to solicit a wide audience, belies the purpose of the book: it is one of few early manuals which explicitly addressed, and was bought by, a professional brewery audience, as demonstrated by a list of brewery subscribers included as testament to its practical utility.

Among Tuck's aims is to present a counterblast to Accum's "violent accusations" against his fellow brewers (Tuck 1822, ix). Like the *Quarterly* reviewer, Tuck (1822, [viii]) faulted Accum's "reliance on science instead of practical acquirement": only a brewer, he asserted, could write usefully on brewing. Accum's *Treatise on the Art of Brewing*, which had appeared on the heels of the adulteration volume, was another hack production, and the brewer compounded his attack by presenting mistakes in Accum's descriptions of various fundamental brewery processes. Tuck (1822, xi-xii) appeared to see chemists in general as ignorant meddlers in the brewery business:

I would ask, who learned Brewers the use of Drugs? The answer must be, *Chemists*; Brewers were tempted, and have since completely discovered the fallacy of the experiment; and now the game is up, one of their own body comes forward to expose the evils they have brought on the Brewery.

Tuck's outlook is wholly factional: chemists or druggists, like brewers, act as a body to protect their common interest, and Accum's publication is only a part of the chemists' extended scam. At one point, Tuck (1822, 84, and cf. 182) denigrates Accum by accusing him of "plagirism" [sic] of Samuel Child's ([1790?]) oft-reprinted pamphlet on brewing with various adulterative ingredients, of which both Tuck and Accum are sharply critical. Tuck's manoeuvre—placing Accum among those who condone adulteration—becomes comprehensible once we appreciate the routine role of ambiguity in contemporary instructional literature.

This may best be traced through the institution of the publicans' guide, which, like the brewery manual, became established from the late eighteenth century as a small genre whose authors borrowed freely from each other's works, so that a set of more or less conventional features developed. The typical text contained a summary of the laws relating to publicans, a selection of recipes and warnings against the sharp practices of distillers and spirit-vendors, which included adulteration. These same practices, however, were employed by publicans themselves to extend their profits from drinkers, and so could not be straightforwardly attacked. Suitable ambivalence was ingeniously achieved through a medical analogy: the "doctoring" of spirits might be presented, depending on circumstance, as quackery or as cure (or, at least, the amelioration of an unavoidably bad state.)

It was perhaps from this delicate position that a convention arose whereby virulent attacks on an adulterative technique could sit in the same volume as directions for performing it, so clear and precise as obviously to have been designed with emulation in mind (Smyth 1781, 22-3, 64-6). The justification for giving the directions might be that "it is proper to mention every thing that may occur in a work of this kind," or the author might absent himself from responsibility and "leave the reader to judge of [their] good and bad qualities" (Hardy [1795], 78-9; Boyle [1800], 45, 47). Initially, these directions largely concerned adulteration of spirits, which were of the greatest financial significance to publicans. From 1800, however, the content of Child's abovementioned pamphlet worked its way into the corpus of familiar material (Boyle [1800], 60-73). Brewery adulterations were thus publicised among the victuallers and small brewers, who could buy these volumes from druggists and instrument-makers (House of Commons 1819, 35; Boyle [1800], [title page], [146]).

Accounts of additives thereafter became almost general in brewery as well as publican literature. Authors of the more comprehensive treatises, such as Alexander Morrice (1802, 131-48) and Richard Shannon (1805, passim), were able to exploit the presumed multiplicity of their readerships: additions prohibited in the commercial brewery were perfectly legal among private

individuals brewing for their own consumption, however toxic the additives. Meanwhile, the imperative to give as much information as possible, as a safeguard or "for choice and experiment," remained a useful prop to accounts of doctoring (Moir 1802, 30-1). Child's pamphlet, most surprisingly, quoted on its cover lines against adulteration by the brewing theorist Michael Combrune, which appeared to evoke strong opposition to the practices discussed inside (Child [1790?], [1]).

Accum's work was inescapably part of this process. In the second edition of the *Treatise*, Accum censoriously indicts Morrice for "recommend[ing]" various additives; in the course of doing this, he reproduces Morrice's list and guidance verbatim (Accum 1820c, 150-3). It was in this climate that Tuck, who as a brewer must have been altogether aware of the role of strategic ambiguity in brewery literature, deposited Accum among the brewers' druggists, ostensibly his mortal enemies.

Contemporary criticism of the *Treatise* tended, indeed, to focus on the idea that Accum had produced a serviceable manual for adulterators, whether ingenuously or not (*A New System of Practical Domestic Economy* 1823, 250-1). *Death's Doings*, a comic verse compendium of 1826 showing the grim reaper in a variety of situations, includes W. J. Forbes's poem "Death (a Dealer) to his London Correspondent," in which Death glories in "extracts of coculus [*sic*], quassia and copperas," playing on the words *ail* and *bier*. Accum is mentioned by name, and the accompanying cartoon, with Death surrounded by adulterative poisons, shows a copy of "Accum's List" pinned to his wall for ease of reference.



DEATH'S REGISTER.

Fig. 1.1: 'Death's Register' (Dagley 1826, plate facing 297)

Discussing adulteration from any angle was thus a risky business, open to multiple readings. Accum's transfiguration into the adulterationist's friend, in fact, has precedent in the curious fate of Humphrey Jackson, chemist, Fellow of the Royal Society, and sometime friend to the powerful London brewer, Henry Thrale. Jackson wrote against the adulteration of bread and beer in the 1750s; his relatively dispassionate contribution to an inflamed pamphlet war and promotion of analytical techniques led Frederick Filby, in the 1930s, to install him as a precursor to Accum (Filby 1934, 96).

Yet Jackson was also a well-known projector, and sunk large quantities of Thrale's capital into schemes for hardening and preserving wood and for preparing a naval beer concentrate. The chemist made enemies of most of Thrale's staff, including the general manager, John Perkins, who became co-owner of the brewery after Thrale's death in 1781. Jackson had meanwhile begun a course of philosophical lectures on the art of brewing: he was savaged in print, apparently by an operative brewer who had attended the course, as a quack given to stating in high-flown language a mixture of the obvious and the absurd (*Observations on the Art of Brewing Malt Liquors* 1775). Thus, or via some other animus, Jackson became identified as the progenitor of the class of adulterant-vending brewers' druggists, and is pilloried as such in Thomson's 1812 *History of the Royal Society* (Appleby 1986; Millburn 1986, 42-3).

Ironically it was Accum, in picking up this story in the *Treatise on Adulterations*, who did most to affirm Jackson's adulterationist reputation (Accum 1820a, 159-60).

Accum, in like fashion, had exposed himself to considerable risk by discussing adulteration. To avert this risk, it was crucial that he himself be perceived as an individual of unambiguously sound reputation, motivated by public rather than personal interest. General acceptance for such a perception, however, was prevented both by the lurid tactics which had proved so effective in securing a mass audience, and, where it could be detected, by the reliance on scissors and paste: recall that Accum's sin, to the *Quarterly* reviewer, lay both in needlessly "frightening his audience" and in factitiously "filling a page." To those who doubted Accum's credibility, the book was not a disinterested exposé but a commodity—an adulterated commodity, at that, bulked by worthless and potentially harmful matter, into whose provenance Accum, like the tradesmen he excoriated, did not enquire, preferring to let the buyer beware.

#### Conclusion: the disappearances of Accum

Late in December 1820, Accum was publicly accused of tearing material out of books in the Royal Institution's library and removing it for his own use. An initial prosecution for theft having failed, the Institution's managers had Accum re-indicted on the alternative charge of mutilating its property. A trial was scheduled for April 1821. Accum failed to attend, forfeiting a considerable bail; probably by this stage he had already left the country. Accum was to spend the remainder of his life in Germany, mostly in Berlin, where he died in 1838 (Gee 2004).

Insinuations of a plot against Accum, leading ultimately to his enshrining as an apostle of the pure food and drink movement, began to circulate during the chemist's own lifetime. In the anonymous *Deadly Adulteration and Slow Poisoning* of 1830 or 1831, "An Enemy to Fraud and Villainy" ramps material from the *Treatise on Adulterations* and elsewhere to a histrionic pitch, while painting Accum as the "intrepid advocate of offended justice, whose civil death to science and suffering humanity is to be sincerely deplored." Elsewhere we learn that

advocate of fair dealing [...] has been offered a vindictive sacrifice on the altar of trading cupidity and fraud [...] the expatriation of that gentleman is a disgrace to the country which he has adorned and benefited by his talents. (Deadly Adulteration [1830?], 52, 39-40; italics original)

Some of Accum's advocates, indeed, have implied that the charges against Accum were entirely fabricated by his enemies. 11 Minutes from the Royal

Institution's managers' meetings, however, show the initial action as due to the suspicions of an observant assistant librarian; the Library's regulations were stringent, and at least one volume, mentioned in the Institution's minutes in connection with the case, has been verified to survive in a mutilated condition (Cole 1951, 137-42; Vernon 1954, 244). Recent profiles of Accum accept the charges as probably valid, if prosecuted with an intensity which may suggest other motives at work (Gee 2004; Coley 2004).

On 10 January 1821, as the tide of popular opinion was apparently turning against Accum, an open letter in his defence appeared in the *Times*, addressed to the Royal Institution's president, Earl Spencer, and signed "A. C." This was beyond doubt Anthony Carlisle, professor of anatomy at the Royal Academy. A contemporary and patron of Accum's, Carlisle had famously collaborated with William Nicholson on the voltaic decomposition of water in 1800; he had since established himself as a pillar of the establishment, Fellow of the Royal Society, and surgeon-extraordinary to the Prince Regent, and was soon to be knighted. Carlisle neither denied nor condoned Accum's crime, but asked the reader to understand it in the light of his Nicholsonian training. Carlisle presented Nicholson (who had died in 1815) as possessing an admirable but ungentlemanly philosophical zeal which accorded no respect to materials, physical or literary, where time and trouble could be saved through their destruction. "[A] printed volume," to Nicholson or Accum, "was considered in the abstract as a mere vehicle for knowledge," and its consumption, if productive, "rather beneficial to trade than a venial offence."

This helps us to understand how Accum's behaviour might have been viewed in a natural-philosophical milieu which professed itself sceptical of trade. Jan Golinski (1992, esp. 9, 193, 259) has drawn particular attention to the role of Humphry Davy in patterning the norms of public chemistry in this period: in reaction to his early associations with Thomas Beddoes and the spectre of Revolution, Golinski suggests, Davy promoted a socially conservative, quietist vision stressing the chemist's role as disinterested authority. "Respectable" chemists needed to avoid accusations of self-interest or projecting, showing their activities to be conducted for the general benefit of humanity. The continuation of mercantile habits into public-chemical life, therefore, cemented Accum's unacceptability. There were question marks even over William Thomas Brande, who shared Accum's apothecary background, but whom we have noted as far more closely involved with the institutions of London chemistry. Brande and Davy were initially friends; towards the end of his life, however, Davy privately assessed Brande as "a very inferior person" who retained the tradesman's attraction to "as much profit as [h]e could obtain" (quoted in Fullmer 1967, 134; cf. Berman 1978, 132).

Brande, however, was a class above Accum, whom Davy straightforwardly dismissed as "a cheat and a Quack" (quoted in Fullmer 1967, 134). Davy probably recalled Accum's involvement in a project to light London by coalgas, undertaken by a fellow expatriate, Friedrich or Frederick Winsor (Fullmer 1967, 146): again, there are parallels with the activities of Nicholson, which included water-supply projects. Winsor, who had little technical knowledge, made wild claims for the potential returns to investors in 1807, arousing the hostility of Davy and others (Williams 2004); Accum established a reputation as a technical consultant in the field, giving evidence before the Commons in favour of Winsor's patents and producing a popular treatise advocating gas lighting. That he was simultaneously a director and manager of the Chartered Gas Light and Coke Company, from Davy's perspective, tainted his public pronouncements and his chemical reputation more generally (Cole 1951, 133-4).

If Carlisle's account is to be believed, the farcical incident of the Library provided a clear reminder of this element in Accum's character. To Accum, both printed matter and chemical knowledge itself were common property, to be seized upon by whosoever might use them; such use, and not origination, determined the right to both status and recompense. The guardians of the Royal Institution, by contrast, regarded the integrity of the volumes as sacrosanct, and Accum's acts as thefts which, though financially trivial, showed an utter disregard for collegiality. Correspondingly, Accum's projecting tendencies, combined with his willingness to put his name on material he had not originated (and perhaps, in some cases, did not comprehend), divorced him from chemical society. Carlisle, in the *Times* letter, made clear his view that most other subscribing members of the Royal Institution, charged with the same offence, would have attracted a multitude of defenders.

Accum's commercial agenda, moreover, had a role in his second disappearance —his failure to appear in the historiography of chemistry (outside the literature on adulteration) to the degree his activities, public profile, and connections might seem to warrant. The fate of his reputation is very similar to Brande's, as Elizabeth Haigh (1991, 186) records: though he served as Professor of Chemistry at the Royal Institution for nearly four decades, cultivating many influential connections, Brande's focus on bread-and-butter consultancy work as opposed to original research led to posthumous obscurity, the Institution preferring to project its status through the seemingly unworldly figure of Davy's disciple, Michael Faraday. Haigh (1991, 198-9) characterises this renegotiation (and the attendant downplaying of the commercial analysis undertaken, inevitably, by both Faraday and Davy) as principally retrospective, established by later Royal Institution figures such as William Spottiswoode; yet it was under way, as we have seen, in Davy's time. Today, while Accum's technical and popularizing influence have been retrieved, it is uncontroversially recorded

that he "never made any significant contributions to pure chemistry" (Gee 2004). The drive to establish 'purity' in chemical practice, rather than in food and drink, ultimately did most to secure Accum's disappearance from the public stage.

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#### RETAILING SCANDAL: THE DISAPPEARENCE OF FRIEDRICH ACCUM

#### DRAFT - NOT FOR CITATION

Notes

<sup>1</sup> The principal sources on Accum remain Browne 1925 (supplemented by Browne 1948) and Cole 1951. Stieb 1966 proceeds largely from Browne's texts and, concerning the episode of the Royal Institution's library, from Vernon 1954; Vernon draws his account directly from the same minutes published verbatim by Cole. Both Gee 2004 and Coley 2004 add minor details not found elsewhere.

<sup>2</sup> An analysis of the quotation is given in Cole 1951, 137, n. 64. The price and format are as reported in *The Times*, January 24 1820, 4B.

<sup>3</sup> Browne's unreferenced claim is confirmed by a [mock?] letter published in *Blackwood's Edinburgh Magazine* 1820, 6: 621-3, reproduced in Schuette 1943, 294-5.

<sup>4</sup> Those surveyed here are *Blackwood's Edinburgh Magazine* 1820, 6: 542-53; *British Review* 1820, 15: 171-91; *Edinburgh Review* 1820, 33: 131-44; *London Literary Gazette* 1820, no. 156: 33-8; *Quarterly Review* 1820-1821, 24: 342-8.

<sup>5</sup> The text in question is [Robertson] 1781, [7]-8. The allusion is a venerable one, traceable to Johann Heinrich Schulze of Halle's treatise *Dissertatio qua mors in olla seu metallicum contagium...* circa 1722, "mors in olla" being the Vulgate rendering of the phrase. Cf. Stieb 1966, 16; Schuette 1943, 283 and facing plate.

<sup>6</sup> It may be relevant that Cocks and Campbell, who conformed to the standard price, were the acquisitors of the failed Golden Lane Genuine Beer Company, a project aiming to undercut the established trade which had been set up in a blaze of anti-monopolist and anti-adulteration rhetoric (Mathias 1959, 243-51). By 1817 the largest surviving porter firm outside the "great eleven" was the old-established firm of Dickinson, on a quarter of Cocks and Campbell's output.

<sup>7</sup> The date of the first edition is uncertain: no copy is recorded in the standard bibliographic databases. An unamended

<sup>7</sup> The date of the first edition is uncertain: no copy is recorded in the standard bibliographic databases. An unamended reference to "the present day, 1818" in the second edition (126) indicates, at least, that part of the manuscript was compiled in that year. From Tuck's comments in the second edition's preface it seems clear that the first edition was completed before either of Accum's works were published in 1820.

<sup>8</sup> This work also contained unattributed borrowings: Accum 1820b, 55; cf. Ploughman 1797, 10.

Several texts likely to have been influenced by the prominence given adulteration issues by the *Treatise*, if not necessarily by the content of the work, are listed in Burnett 1979, 105.

<sup>10</sup> Clayton 1909 attributes the volume to "J.D. Williams." John Dingwall Williams was a lawyer whose petition to outlaw itinerant vendors of "poisonous nostrums" is mentioned in the work (*Deadly Adulteration* [1830?] iii, and cf. 65-6 n.)

<sup>11</sup> Charles A. Browne in producing the first detailed at the firs

<sup>11</sup> Charles A. Browne, in producing the first detailed study of Accum, seemingly took this view (1925, 1140-4), but later revised his opinion in the light of new evidence (1948, 6-7).