A personal consideration of Alfred Barnard's *Noted Breweries of Great Britain and Ireland* and aspects of its relationship to the late Victorian brewing industry

Paul Bayley

Introduction

In 1889 Alfred Barnard[1] published the first volume of a remarkable work, *The Noted Breweries of Great Britain and Ireland*. It took the form of a series of reports on visits to breweries which eventually ran to four volumes; a total of some 2,183 pages, plus introductions and advertisements. Barnard's primary focus was on the brewery as a production unit rather than as the vertically integrated retailers into which brewing companies were slowly evolve. Whilst giving few major insights into the economics of the industry, he gives detailed accounts of the premises, plant and product range of a wide range of breweries close to the height of the late Victorian brewery boom. *Noted Breweries* is unique as a historical source for these aspects of the brewing industry. As Peter Mathias states, 'The four large volumes of A Barnard, *Noted Breweries of Great Britain and Ireland* (1889) are a mine of information'.[2] It can only be hoped that the elements of research in this paper, together with a measure of interpretation and a sprinkling of speculation, can add a worthwhile contribution to the background and understanding of Barnard's most significant work. Despite what may occasionally appear to be somewhat unusual views and ideas on Barnard, for which I must emphasise that no-one but myself is responsible, I should state that I remain second to none in my respect for his achievement. I am sure others and myself will return again and again to his *Noted Breweries* for both hard information and inspiration.

Background

In modern terms Barnard was a journalist within the new and, at the time, growing area which we would now describe as the drinks industry trade press. Around 1887, whilst he was working for a wines and spirits periodical, *Harper's Weekly Gazette*, he undertook a gallant attempt to visit all of the whiskey distilleries of the United Kingdom. He may or may not have visited all of them, but he certainly reported on 161 Scottish and Irish whisky

distilleries, including four English examples. These reports initially appeared as a series of articles in *Harper's* and were later reprinted as a book, *The Whisky Distilleries of the United Kingdom*,[3] which has subsequently assumed an almost biblical significance to the malt whisky connoisseur.

In this book, after covering the technical issues in his twelve-page foreword, the result of intensive personal research, Barnard goes on to report, relatively briefly, on the details of each distillery. He covers them all in 455 pages, an average of 2.7 pages per visit, however the lengths of his reports vary considerably and a few barely cover half a page. Apart from occasional brief scenic accounts, in which he probably returns to the travelogue style of some of his earlier Scottish travel publications,[4] his essentially technical descriptions follow the process of whisky production in each distillery. In these he seems almost to follow a box ticking process which leads to accurate if at times somewhat dry accounts. These, as well as plant descriptions, generally include details of water source, production figures, style and market destination of the whisky produced and, in many cases, even such mysteriously vital factors as the name of the distillery's excise officer. Specific references to the flavour characteristics of the individual distillery's products were avoided. This was possibly to avoid favouring any particular distillery and because of the high degree of blending of part, if not all, of many of the distilleries' output. The blending of whiskies was then a general phenomenon and remained so for many years, although interest in the consumption and marketing of single malt whiskies did exist and has since grown, perhaps helped by Barnard's work.

The success of his whisky articles lead him on to a new, more significant and wealthier sector of the economy, one waiting, perhaps even begging, for similar treatment - the brewing industry. Whilst broadly formatted in a similar style to the distillery reports those concerned with brewing were generally grander, more individualistic and detailed. Within his remit Barnard faithfully records the premises and plant of the 115 establishments, in some cases probably repeating data provided by his sponsors, but in others clearly describing plant, counting (even the windows) and not least, measuring the buildings. Some 115 brewing plants (including five maltings and a bottler) were visited and covered 2,183 pages over four volumes, an average of 18 pages each. The largest, Bass, covered 76 pages and the smallest, Sir John Arnott & Co Ltd. of Cork, covered just three.

Throughout his visits Barnard's style continued to be congenial, becoming, if anything, more relaxed as he suffused his work with optimism and never attempting to disguise his fascination and enthusiasm for things new. This became a key aspect of his making the reports more readable and interesting to

a wide audience and, where opportunities or needs arose, the less exciting parts of some brewery visits were padded out with local information and history. These brewery reports were not simply designed as weekly magazine articles or part-works of general interest, *Noted Breweries* was always destined for book form with the added potential to be used for significant numbers of selective reprints. Whilst, like the distilleries articles, it could satisfy a pre-existing curiosity on the part of the general public the likely *raison d'être* for its publication was, as this paper will explore, far more complex. Although *Noted Breweries* was meant to be approachable to non-technical readers and was written in what may seem to us a populist style, it was none the less an extremely specialist work. So detailed was it that, realistically, only someone closely connected to the industry would be interested enough to read so many reports, much less all of the four volumes, from cover to cover. Further, this was a book available by subscription, an exclusive, private publication, rather than one to be found remaindered in the local bookshop.

In addition to the tone and style, the accounts in *Noted Breweries* had moved on from the polite gratitude and respect paid to the distillery owners who offered the opportunity and material for his reports and occasionally a hospitality dram (at least some of which he admitted to). For the breweries he developed a more deferential, almost sycophantic, attitude to his hosts, the brewery owners.

The first volume was claimed to be the result of two years of work and appeared in 1889. The other volumes appeared at intervals with the fourth and final publication, one more than originally planned, appearing in 1891.[5]

Barnard states in his introduction to Volume I:

> Considering the enormous consumption of malt liquor, the vast revenue therefrom and the princely fortunes that have been made by brewing, it is a matter of surprise that no person connected with the trade has attempted to put together a few facts concerning some of the noted breweries or given a description of the rise and progress of their vast breweries which are scattered over the Kingdom.

This was certainly true and he included rather more than a few facts. He goes on to claim the objectives of his exercise:

> Firstly with a view to acquaint the reader with a knowledge of the colossal trade and manufacture of beer and the vast resources of the breweries.
>
> And secondly to make known the history and antecedents of some of the eminent brewers whose names are well known to fame and whose deeds are recorded in the annals of their country.

He achieved both of these objectives as well as others he perhaps deliberately failed to specify. As well as staggering the readers with the sheer scale of the indus-

try, starting with Guinness, Bass and Allsopp, he also gives readable, accurate and, in many cases detailed, descriptions of many of the companies and much of the production equipment of the time. More specifically, as well as reporting, as the title implies, on the major breweries of the day, he also covered many rather more typical medium sized and a smattering of smaller concerns. Overall he provides a unique insight into a wide cross section of the plant and the personalities behind one of the major industries of the Victorian world. In the preparations for his books Barnard visited a total of 113 businesses. Five of these businesses were sales maltsters and one a specialist bottler. Of the 107 brewing companies seven operated two breweries and one three breweries, sometimes in the same town; that is a total of 116 breweries. At that time there were some 1950 common brewers[6] in the UK so Barnard visited just over 5% and perhaps a third of those producing above 20,000 barrels per annum. Remarkable as it is, *Noted Breweries* is therefore a very incomplete 'Doomsday Book' of Victorian breweries, but since it includes most of the large ones and a wide selection of the medium sized ones it is both significant and representative in terms of the volume of beer produced. The small, local breweries, individually producing from 1,000 up to perhaps 20,000 barrels a year, were numerically a very large group of around 1,700 but are, by number, seriously under-represented. However, despite the remit implicit in the book's title, when running out of volunteers amongst the larger (and commercially more attractive) breweries, representatives of the small ones do make a number of appearances in Volume IV. Perhaps up to ten out of the 43 breweries included in that volume produced less than 20,000 barrels with a further ten producing not far above that level.

Barnard's is a work that could only be produced with the close co-operation of the owners of an industry at a unique phase in its development, one at the peak of its prosperity and replete with self-satisfaction. After all, industrial scale (common) breweries were part of the great Victorian success story, riding the wave of the industrial revolution. Using many technologies applied in or developed from the industrial porter breweries of London, which had been in the vanguard of the industrial revolution, they had experienced a boom without precedent with over 50 years of consistent market growth. In the midst of so much success and in the full flush of the British Empire, it was perhaps not so surprising that brewing entrepreneurs should be swept along by the view that the industry was one on which the sun would never set. Its seemingly limitless expansion had been based both on a growing, shifting and predominantly urbanising population and on the relatively painless consolidation of brewing which the industrial scale common brewers had enjoyed at the expense of the small publican and domestic brewers. It was an industry in which 'only the incompetent could fail to make money', but with hindsight it is clear

that as its market matured the breweries were steaming blindly towards the buffers of real competition. The inevitable collision resulted in a bout of consolidations, mergers and takeovers. In what can be regarded as either the progressive evolution or the long drawn out decline of the British industrial brewing industry, companies were to voraciously devour each other in the search for economies of scale and the protection which they saw as conferred by the control of their markets, part of which was the establishment of estates of tied houses.

Paymasters - personal subscribers

To justify any publication a writer needs readers. In this venture the number of personal subscribers and purchasers of the book were clearly limited by its specialist nature. Whilst there might well have been members of the public who found the subject of esoteric as opposed to commercial interest there would certainly never have been enough to justify so lavish a publication. That such a demand existed and that the book was indeed actively promoted seems to be confirmed by the fact that the availability of copies of *Whisky Distilleries* was advertised in *Noted Breweries* and it seems possible that similar reciprocal arrangements would exist for advertising *Noted Breweries* in *Harper's* and other industry related publications. Such demand from the general reading public could have fulfilled a limited function as a coffee table book, perhaps for the wealthy or upwardly mobile to dip into in their idle moments. It could also have satisfied a need as a shelf filler for those Victorian gentlemen building a domestic library, an interesting alternative to illustrated tomes on Britain's flora and fauna or accounts of adventurers travels to the far flung corners of the Empire.

Even in the railway age most of the brewing industry supplied an essentially local customer base. London, Burton and, a few major cities apart, breweries were spread thinly and generally evenly across the country. Within any specific geographical area *Noted Breweries* had a limited audience, but the general presence of local breweries, the social nature of their product and both beer and its manufacture being the topic of endless bar talk in many thousands of public houses may have lent some popular support to such a book. In its favour one can only imagine that a publication on breweries would have raised more widespread interest than one describing visits to coal mines, or exploring the intricacies of iron foundries or cotton mills, but its purchase price was high. Even in bulk to the 'Noted Brewers' themselves the wholesale or sponsors price per volume was equivalent in drinkers real terms to over 50 pints of beer, perhaps £150 at today's prices, and far in excess of a labourer's weekly wage. Presumably if the equivalent to a retail sale price had existed it would have been significantly higher.[7] Consequently, it was not a book which working class drinkers could afford and even though it was an age when

public and private libraries were expanding and increasingly used as repositories of knowledge, one suspects that not many of these would subscribe to it.[8]

Paymasters - the overt advertisers

As management gurus say, 'all business is based on selling' and in the broadest sense all the entries in Barnard's books were, in one form or another, advertisements. More overtly, and in line with many Victorian publications, Barnard offered full, half, quarter and even one-eighth pages in a section at the end of each volume to a plethora of advertisers. This provided them with direct exposure to a specialist body of readers linked to the drinks industries and thus to prospective customers. Wines and spirits manufacturers and merchants and distilling and brewing engineers were heavily represented amongst advertisers, a reflection of Barnard's wines and spirits trade contacts and of his whisky travels.[9] Advertisements for a variety of drinks trade periodicals were comparatively few in Volume I, but by Volume IV these had become the leading category as other advertisers fell by the wayside. The revenue from many pages of advertisements must have made a useful contribution to his production costs, particularly for the important launch of Volume I. This had 36 pages and 68 advertisements, but the numbers fell to six pages and twelve advertisements by Volume IV. Clearly this revenue stream from advertising tailed off as the enterprise continued and must have reflected the much reduced commercial opportunity offered to advertisers and to Barnard by the smaller local breweries which constituted many of the entrants in Volume IV. It was also seen in the lower print runs of the later volumes.

Paymasters - the subtle advertisers

In a less overt way the articles on the visits Barnard made to the sales maltsters and the bottler, whilst to a modern reader usefully extending the interest of Barnard's work, were strictly speaking outside its remit and can realistically only be described as directly advertising their premises and products. They were specific businesses which stood to gain sales from the potential customers who were the likely readers of this shop window of brewing.[10] These reports followed an increasing trend of 'articles', frequently with illustrations of new premises and plant, which appeared in the growing number of brewing industry periodicals. For example in issues of *The Brewers Journal*, beginning in the 1880s and 90s, new maltings were regularly featured[11] amongst other industry developments. We can only assume it was expected that their presence in Barnard resulted in additional business enquiries or at least achieved a smoother entry for their sales agents.[12]

It seems likely that, although I have found no direct evidence, the suppliers appearing in Barnard contributed further by purchasing reprints of their reports to

ADVERTISEMENTS.

PLUNKETT BROTHERS'
PATENT MALTS.

PATENT
CHOCOLATE MALT,
BROWN MALT.
CANDIED MALT,
FOR
PORTER, STOUT,
AND
EXPORT.

CANDIED MALT.
GOLDEN MALT.
FOR
FLAVOURING
MILD ALE.

BELLE VUE MALTINGS, DUBLIN.

DEAR MRS. PLUNKETT,
We have the pleasure of stating that we are purchasing considerable quantities of your Patent Brown Malt and find it of very good quality, we would also say that our connection with your Firm and that of your husband the late MR. RANDAL PLUNKETT, and his father, extends over fifty years, during which we have had large and satisfactory transactions.

JAMES'S GATE BREWERY, DUBLIN, 25th February, 1873.
ARTHUR GUINNESS, SONS & CO.

Mrs. Eliza Plunkett,
Belle Vue.

ESTABLISHED 1819.

TRADE MARK

WILSON & COMPANY, LIMITED,
Brewers' Engineers, Vat Makers, and Coppersmiths,
OLD COOPERAGE & ENGINEERING WORKS,
FROME, SOMERSET.

Manufacturers of the following:—
BREWERIES.

Archimedean Pumps
Attemperators of every kind
Cask Drying Machines (hot air)
Cask Lifting and Lowering Machines
Cask Washing Machines
Cocks and Valves of all descriptions
Copper and Iron Pipes and Fittings
Elevators
English Oak Vats up to 3,000 barrels
Fire Coppers, Opened and Domed
Hop Presses
Liquor, Wort, and Fire Engine Pumps
Malt Mills with hard white metal rolls
Mashing Attemperators
Parachutes
Rounds and Squares
Rousing Machines
Sack Tackles of various kinds
Screws and Creepers for Conveyors
Settling Backs
Shafting, Pulleys, and Wheels
Skimming Backs with special apparatus
Spargers—all kinds
Steam Boilers
Steam Coils
Steam Engines of every kind
Steam Jacketed Coppers
Steele's Mashers—Copper, Iron & Gun Metal
Union Casks, Butts, and Stillions
Wood and Iron Cold Liquor Backs
Wood, Copper, & Iron Mash Tuns
Ditto do. False Bottoms
Ditto do. Hop Backs
Ditto do. Underbacks

Figure 1. Two advertisments from Volume IV of Noted Breweries. *The remaining ten advertisments in the volume (all half page) are associated with drinks trade press publicaotons (8) or brewery architects (2).*

circulate to prospective customers as a form of superior sales brochures. It is equally likely that these, and indeed the whole universe of non-advertising suppliers to the brewing industry, would have purchased copies of all four volumes as a source of information about actual and prospective customers and to provide talking points for their sales agents.

Paymasters - the sponsers

In addition to the personal subscribers and advertisers already referred to Barnard would still have had encountered a shortfall in revenue. He needed a large number of other customers, preferably making multiple purchases. That is, in addition to purchasing the book to read for themselves, they would also have purchased it for other readers. These customers were none other than the owners of the 'Noted Breweries' of the title and in committing this act of apparent ‘generosity' they would of course be supporting or directly promoting their own operations. They had clearly approved of the book's production and co-operated in Barnard's visits and they were thus his primary paymasters making undoubtedly the biggest contribution to his revenue.

These owners were a self-selected group within which each had his own motives for seeking or approving, and

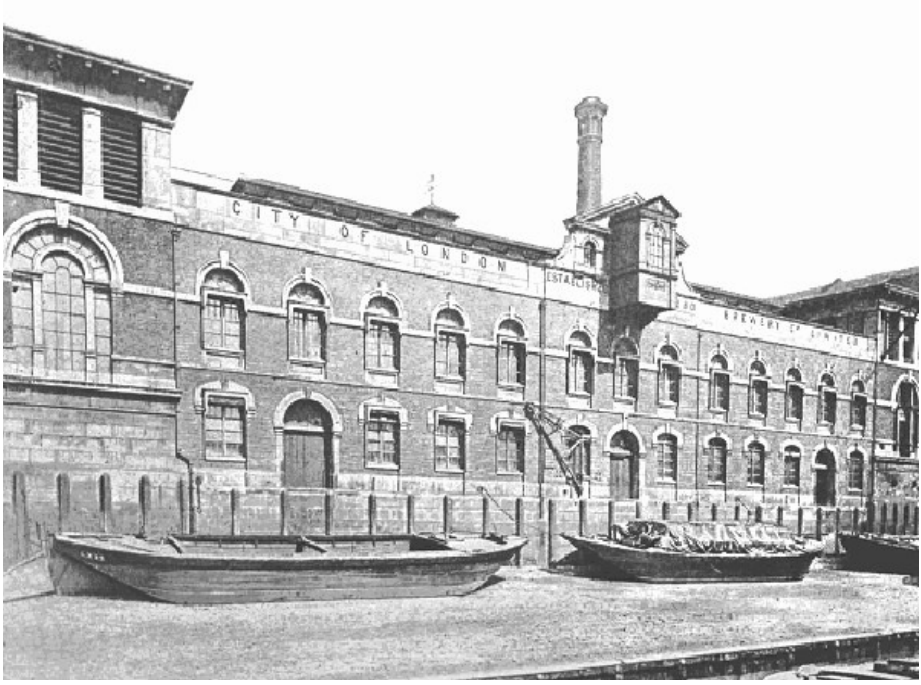

Figure 2. The City of London Brewery (late Calvert's Brewery) from the Thames, Volume II, p.292 of Noted Breweries*. One of the oldest breweries in London - claimed to be founded in 1580 or earlier.*

purchasing inclusion in what would become in many ways a *de luxe* trade directory, a *Who's Who* of brewing; in effect it was the first and only edition of what Gourvish and Wilson refer to as 'Barnard's Beerage.'[13 - 20] These financial sponsors must to a greater or lesser extent have been hard-nosed Victorian businessmen focussed on the profitability of their own businesses. The major justification of the expenditure on Barnard's book must have been based on a range of possible future benefits, not least of which was long term sales of their products although there were other possibly less clearly defined motives.[21]

The tone of *Noted Breweries* was driven by the sponsors of what was in essence a private publication. By producing it Barnard had to satisfy them to justify their initial financial support and to attract potential new supporters in order to complete his project. He was always in danger of producing a dry and repetitive text but, subject to not upsetting his sponsors, he undoubtedly used some journalistic license to present interesting and readable articles for and on behalf of these brewery owners. In this role Barnard inevitably became a spokesman for the brewery owner's and personal encounters are limited to them and their managers. Not surprisingly comments from customer's and brewery employees are absent.

Presumably the brewery owners volunteer-ing to enter Barnard's directory perceived a net benefit in doing so which more than balanced what in other, perhaps more fiercely competitive, industries would have been seen as a significant risk in exposing commercially sensitive information. That this risk was carefully controlled by his sponsors seems likely from the reports which varied considerably in their nature, in particular the degree of detail which was proffered in different visits. It variously suggests a combination of careful briefing, in some cases a deliberately rapid, restricted or even superficial inspection of the site, or a judicious revelation of information and, although there is no direct evidence for this, in the last resort the careful vetting of his text. None the less a surprising number of breweries were prepared to reveal details of their production plant to the public and their competitors including its scale, it's likely capacity and in some cases its claimed output, (possibly not the same as the actual).[22] This apparent loss of confidentiality may well have been seen as less important if the information had already been shared with local competitors in formal or informal ways, one of which was in deciding the level of financial contribution of each brewery to the industry bodies which were being formed. In any event, to those interested, a brewery's output can be very difficult to hide and the benefits of such concealment seldom justify the effort. There were large numbers of workers in these labour intensive breweries and even Excise officers were potential sources particularly if, on top of their normal daily consumption on the brewery premises (their daily allowance), they were wont, by way of

lunchtime or evening relaxation, to indulge in a few convivial pints in the local hostelry. Figures discussed over a pint or even quoted to Barnard are of course not necessarily absolutely true since in some cases the desire to impress was itself an underlying motive for entry. In *Noted Breweries* it was necessary to offer some facts and figures but specific production data was avoided by many entrants and for the rest rounded or peak ones could be more impressive whilst still being arguably true. Huge numbers of casks are often quoted and illustrations of rows (or pyramids) of empty casks attract attention and can give a clue (misleading or otherwise) and be significant if only for the apparent lack of a need for them.[23] A more useful guide could be the numbers of people employed, the malt produced (or better, the malt used), or the stock of beer held. Better still even oblique data, such as the number of drays or horses in use is perhaps more likely to be quoted without concealment or exaggeration.[24] In the effort to conceal data, diversionary tactics could also be applied filling up the report with other less sensitive or even totally irrelevant information.[25]

Many breweries without great national aspirations and with what might appear to be a minimal expectation of financial benefit volunteered for entry. Some very small and relatively isolated companies, lacking active local competition, also

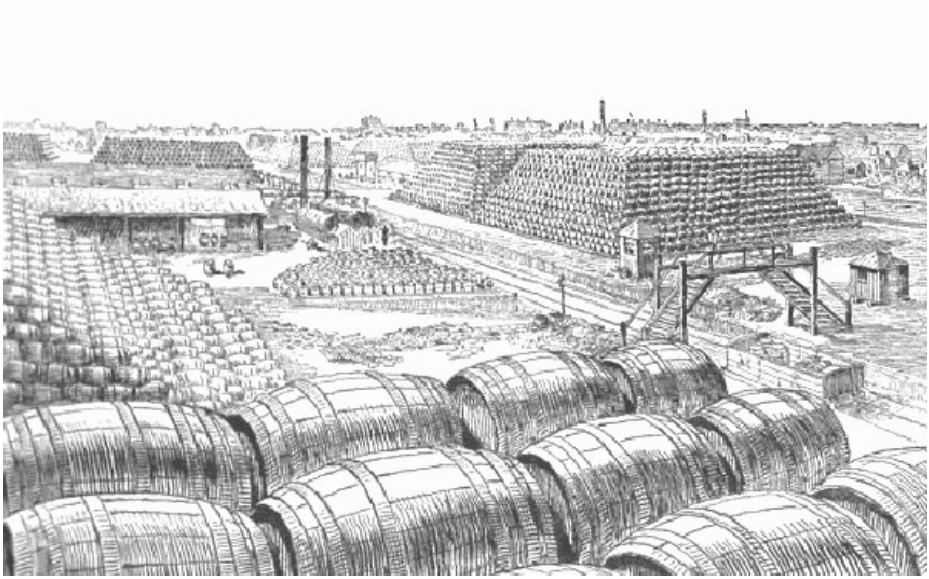

Figure 3. One of Bass' cask stores in Hawkins' lane Burton upon Trent from Volume I p.13 of Noted Breweries*. Claimed to stack 62,279 casks during the year.*

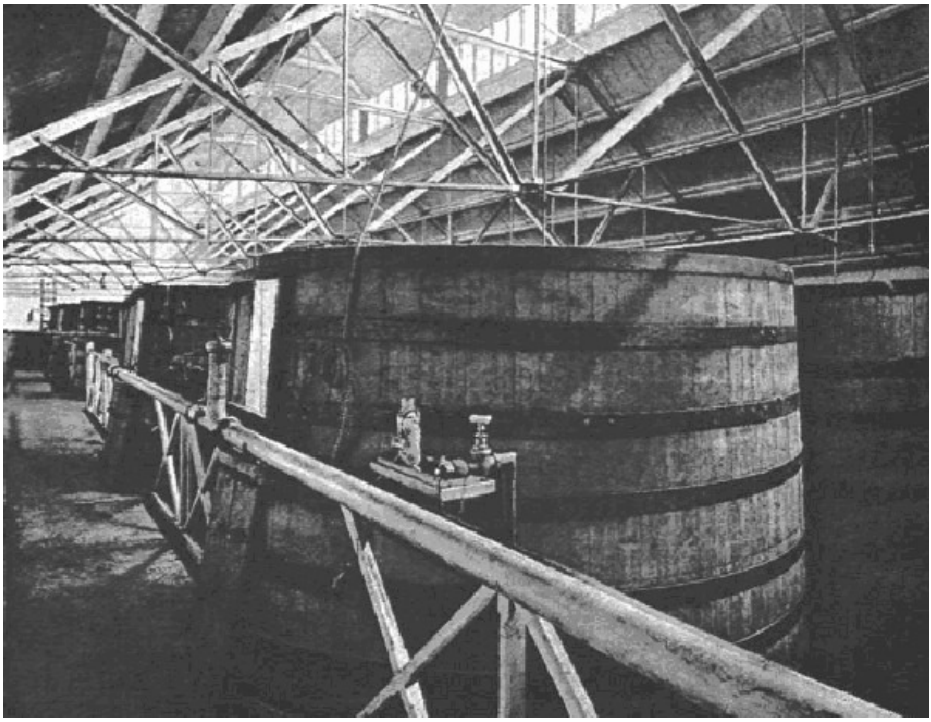

Figure 4. H & G Simond's Reading brewery - a medium sized brewery probably producing between one and two hundred thousand barrels a year which appeared in Volume IV. A substantial medium sized brewery probably producing around 150,000 barrels a year.

sought inclusion. In some areas a group factor may have played a part. A brewery owner, having read Barnard's enthusiastic description of plant similar in size and style to his own, and advised that a visit to his locality was pending, might commission such a visit thus ensuring that a report on his own brewery stood alongside those of his local competitors. It is likely that such local pressures existed or could be built up resulting in some groups of local rivals entering almost *en bloc*, such as the clutch of six Sheffield breweries. Perhaps they reacting jointly, spurred on by Yorkshire pride and possibly prompted by a jointly negotiated Yorkshire discount.

Alternatively there were dessert areas, such as Birmingham and Norfolk, from which none or very few of the brewers, either big or small, came forward. In Norfolk this may have been more than neighbourly collusion in boycotting the

catalogue as part of a cost saving agreement. Steward and Patteson of Norwich, amongst others, have a very early record of buying licensed properties, starting as far back as 1837. They clearly had a totally different business strategy to the Burton brewer's style of national distribution. That is they adopted a tied system, a controlled, concentrated and economic distribution structure resulting in local market dominance, perhaps even a monopoly.[26] Consequently, an entry in Barnard would contribute very little except drawing unwanted attention and possible competition from outsiders in the local property market.

In theory the reports were arranged in a pecking order such that the bigger a brewery was the earlier it appeared within the four volumes.[27] However, this system broke down even in Volume I with the inclusion of Worthington, a brewery whose national reputation punched well above the weight of its healthy, but comparatively modest, 220,000 barrels output. Even stranger, there is no discernible reason for a comparative minnow of a brewery, Marston & Co., by then owned by Mr HE Sugden, producing perhaps 40,000 to 50,000 barrels a year appearing in Volume II. Did Barnard misjudge the sizes of breweries when accepting and organising his entries and planning his visits, was a high profile position in earlier volumes up for offers, did he deliberately include the occasional visit to a small brewery in an early volume as a sampler which might encourage others of a similar size to seek inclusion in the later volumes? Early commitment to an entry carried an incentive in that it raised your chances of appearing in the company of the large and famous in the early and what were to become the more widely distributed volumes. Amongst other factors perhaps Barnard's visits and entries in subsequent volumes depended on the convenience of their geography. Barnard certainly visited Burton on several occasions, but other towns less often. Perhaps his travels formed a grand 'Schlieffen plan' and the railway timetables determined a brewer's position in his catalogue as much as the speed or timing negotiations to reach a decision on financial terms with his sponsors.

Whatever his sponsor's motives there was significant interest from small breweries. Barnard clearly had little difficulty in making up the numbers he needed since he originally planned three volumes which he later expanded into four presumably on the basis of the early volume's appeal to a large number of less obviously notable sponsors.[28]

The remainder - the overwhelming majority of the common brewers of the UK; the smaller, generally less successful and undistinguished ones, the ones with a weaker or no particular claim to be 'noted' - did not seek or declined to be included it. Perhaps they were not ambitious. Perhaps they were frugal or cost conscious breweries, possibly with only small, very local distribution and, in modern terms, with a marketing budget close to zero. Perhaps, like the

Figure 5. General view of Pampisford Brewery, Cambridgeshire from Volume IV, p.491. One of Barnard's smallest rural breweries.

Burton brewers themselves, they were late comers to the scramble for tied houses and in the early stages of the increasingly expensive policy of building up an estate of houses. Any marketing investment which these brewers made could well be channelled into the race to acquire bricks and mortar and they could see no immediate sales benefit from a service such as Barnard offered.[29]

Advertising: what and to whom?

Brand Marketing

There are many possible targets for the various styles of advertising copy in Barnard. The most obvious, from a modern viewpoint, would be the advertising of specific brands, a concept then in its infancy. The widespread use of trademarks was developing and frequent legal actions for 'passing off' and 'dilution' show that the value of brands in some

form was becoming appreciated and well worth protecting. Although not strictly product brands in the modern sense company, even generic and regional names had been very firmly defended when food scares arose. In 1852, when a false allegation of the use of strychnine by Burton brewers provoked a successful defence, the public awareness of Burton was raised and strengthened the town's reputation.[30, 31]

Overt brand advertising was slowly developing and whilst beer brands were not totally unknown to consumers many of these were more often than not simply synonymous with company names. Somewhat surprisingly, in view of the potential which Barnard's reports offered for the promotion of specific brand names, these opportunities were frequently totally ignored. *Noted Breweries* offers very few examples of catchy names and suggests no illustrations of appetisingly frothy pints and certainly none proffered by eye-catching barmaids in fashionable bars. Brand names, in so far as they existed, are seldom mentioned. In this respect the accounts of his visits are amazingly restrained; in fact so squeaky clean are the reports in respect of the absence of brand names or the very limited space allotted to florid descriptions of product that it might suggest a level of naivety on the part of brewery owners. Although it is possible that a level of restraint was imposed by the author, who might have been afraid of exhausting even his extensive vocabulary of complimentary adjectives, it is more likely that it confirms the relative insignificance of specific product brand names at the time. There are some exceptions particularly amongst the younger more thrusting and focussed entrepreneurs. The astute Mr Rogers, the owner of Jacob St Brewery, Bristol, unashamedly plugs the Monarch brand which notably is clearly stated as being available for outside bottling. More ingeniously Mr Garton, of Charles Garton & Co. and from Bristol, seems to have drawn Barnard into a drinking session and thereby gaining a subtle endorsement of the apparently very palatable XX BITTER ALE and GOLDEN ALE. This is one of the few points in his work at which Barnard used block capitals so liberally. Could this have been the result of a uniquely memorable drinking session or at Mr Garton's particular insistence on upper case letters as part of the brand identity? Of course many other hosts offered Barnard the opportunity to sample their products and amongst the exciting names the most popular are XX, XXX and XXXX followed by AK, BB and East India Pale Ale. Sadly almost all of these, by modern standards, were instantly forgettable labels of no outstanding originality, similar, even identical, to thousands of others widely used in 1890. More generally, where particular beers are referred to at all, they are simply Mild, Pale, Bitter, Porter and Stout.

The obvious problem in considering Barnard's book as a possible channel through which to deliver a brand advertising strategy and generate a conse-

Figure 6. Sir Benjamin Truman, a portrait from Volume I, p.172. One of many celebrity brewery owners of the 19th century whose status was affirmed by the naming of what was to become a famous beer brand after him.[32]

quential increase in consumer demand was the books' limited distribution and minimal exposure to consumers. It would impact on only a very small number of the potential retail customers and so could hardly be expected to influence the decisions of many of these at the point of purchase.

The owner or the brewery as the brand

Since so much of the potential advertising benefit of Barnard depends on the brewery name it goes some way to explain the emphasis in many of his reports on memorable or unique characteristics of the brewery itself, perhaps its location, providing the source of the company's title. More often, the name of the brewery founders or the surviving or current owners and their family members were used, especially those whose characters, quirks, foibles, hobbies and lifestyles could be respectably publicised and even embellished, conferring on them some degree of celebrity status. These human details would, then as now, be an effective hook or memory aid and would be readily transmitted in the licensed trade by word of mouth rapidly spreading and reinforcing the public's recognition of the brewery name and hence it products. So successful was this strategy that the name of the original or earlier owners was often retained after a change of hands so maintaining continuity of what could still be a valuable asset. In many cases the name of the original brewery owner or company became the brand, in the sense of a global or catch-all label. This was applied not only to the products of the brewery, but could eventually embrace and add value to all the breweries activities, including its tied houses. In some cases some owner's names became so commonplace that

they are used by the consumers without them ever being conscious they are the names of a person or a family.

The brewery owner's name or the company name had been used as a brand well before Barnard, is reflected throughout his book and has continued in importance for over a century. It is often used followed by a subsidiary brand identifier, as a reference to the beer style. In some cases it was supported by a reference to the town or region of origin. This was particularly to the advantage of the Burton breweries seeking to claim ownership of the fashionable pale ale market by repeatedly linking it to the significant Burton name or the emphasis on the use of London as a descriptor when competing against regional breweries in the declining porter market.

Trade Marketing

The wide advertising of brewery or brand names was clearly of greater value to the breweries with a wide, possibly national distribution. To such breweries expansion outside their local area depended on their brewery or brand name being widely recognised in the free trade. Here the value of inclusion in Barnard becomes apparent and fits convincingly into the category that we would today call trade advertising. That is not advertising to the consuming public at large, but directed towards the decision makers at the various levels of the licensed trade. The intention was to improve on the distribution and availability of a brewery's products by recruiting wholesalers and on and off trade licensees (to which we might nowadays add retail chains, both on and off trade). Supporting a wide distribution network required novel approaches such as developing a chain of agencies, distribution depots and wholesalers, including those bottling beers for local or regional distribution. The owners of other, usually smaller local breweries, increasing numbers of which had tied estates were much sought after as a potential route to market for cask and bottled products. Their willingness to stock another brewer's beer would depend upon the brand strength of the external product and the extent to which they complimented or competed with the house brands. The smaller brewers may have been unwilling or unable to produce a particular style of beer, such as Burton ale or London porter, which they had to stock to compete against the well known premium brands in competing outlets. This was a strategy which Burton breweries, amongst others, used to gain and maintain their national distribution particularly since they were late in acquiring tied outlets.[33] By the time they adopted this policy licensed property prices had risen so much that they could not possibly purchase sufficient of them to achieve a national tied trade distribution of any depth. Their own capital limitations were insufficient to achieve this and attempting to do so as some did further inflated the licensed property market across the nation. Allsopps in particular tried and as a result descended into receivership in 1911.[34]

Inclusion in Barnard's book would support the wider recognition of the brewery name and identity, enabling a brewery to present itself and its products to a nationwide audience of trade customers. These would no doubt be proudly shown, or more likely be presented with a finely bound copy of a reprint of the brewery's entry in Barnard's catalogue. Perhaps this was where the investment in Barnard's book was to be really justified, encouraging even ambitious smaller breweries beginning to venture into the wholesale trade to seek entry into Barnard. Such breweries must have hoped that their potential customers would read the report on their brewery in *Noted Breweries*, which had been thoughtfully supplied, and thus gain access to fresh accounts. To these breweries Barnard offered the means of generating either large or small numbers of professionally produced, impressive brewery brochures at a cost which they felt was affordable and which also carried an apparently independent endorsement by a recognised journalist specialising in the drinks industry.[35]

Reprints and brochures for everyone from Bass, Allsopps, and Salt of Burton to the Dorchester brewery were available in a uniform format and style. This generated a sportingly flat playing field on which the cricket playing gentlemen brewers might play their slightly more serious game of commercial brewing. It did not, after all, prevent them from bowling the odd bouncer in the form of commissioned illustrations, well publicised stately homes, notorious ancestors or the exposure of expert brewing scientists just to liven up the proceedings.

Self promotion

It was part of Barnard's second declared objective to make known the history and antecedents of eminent brewers. Commercial considerations apart, this was heartily supported by some of the brewery owners who clearly sought a certain level of self aggrandisement by means of their entry into Barnard's version of the beerage. Many successful brewery owners had access to family money or had wealthy connections; the many 18th century London brewers, who had strong family links in banking, spring to mind. Others were almost entirely self made men only a generation or two away from humble beginnings but both welcomed a forum in which to record and celebrate their own or their forebears' achievements. The London brewers of the mid and late 18th century had successfully cemented their wealth and ascent into the upper classes by the purchase of country estates and a hundred years later this process was still being repeated. In Barnard's work the family histories of some brewery owners and descriptions of their stately residences were featured at length, in particular in Barnard's report on Bass he included accounts of his visits to both Rangemore Hall, home of Lord Burton, and Drakelow Hall, home of the Grettons. Other ennobled brewery owners, such as the Guinness's and Allsopps, were more

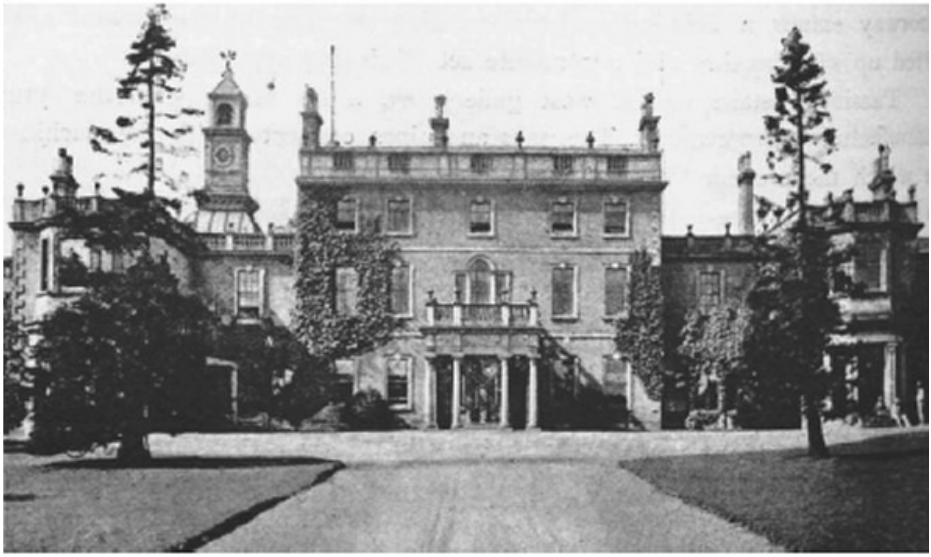

Figure 7. Bulwell Hall the home of Thomas Hardy, proprietor of The Brewery, Kimberley near Nottingham. From Volume IV, p.110.

reticent about exposing their domestic arrangements, at least in such a potentially commercial publication

Successful breweries and the wealth that went with them offered their owners, if not an automatic entry to the peerage, at least the opportunity and resources to undertake political or public service. Many in fact became active members of parliament or funded good works which would recommend their elevation to that rank. A little self advertising in Barnard, whilst by no means as effective in gaining elevation to the peerage as a donation to a political party, was not incompatible with it and at least this flagged up a level of ambition and preparedness to ascend the ranks. Others, perhaps not quite so successful or with more modest ambitions, were simply happy to impress the reader with their business acumen whilst revealing less spectacular but still remarkable statistics on their size, growth rate, sundry merits and extensive markets.

The endorsement of science

Barnard was writing in an age smitten with technological advance, besotted by the biggest, best and latest developments of large scale or mechanised

production. It was an age when, in any industry, being ultra modern was an undiluted source of pride as well as potential profit. The sheer scale of the more traditional brewing plant, for example rooms of pontos or Burton unions, might impressed readers by the immense multiplication of their albeit small units. Similarly the sheer scale of large porter storage vats disguised the risk of them appearing old fashioned, whilst in the world at large the perceived value of hand crafted products was steadily being eroded by mass production, despite the worthy attempts of the arts and crafts movement.

The scientific method as a basis for problem solving had been widely, if patchily, applied by successful brewers for many years and of course this quietly continued. Simultaneously science, in the sense of a body of factual, if mysterious, knowledge, was held in awe and certainly in far more respect than in the more questioning modern age. The brewing industry was, or rather by 1889 had been, a fast growing biotec industry, yet within brewing circles, and not least in brewing journals, a significant debate had developed. On the one side were those lauding all the latest scientific ideas and on the other an anti-science faction favouring brewing experience, sometimes defensively, sometimes disparagingly, referred to in the trade press as 'the brewers art'.[36] Barnard always endeavoured to be all things to all men and, whilst not decrying 'art', realised that many brewery owners, because of personal interest or the desire to promote a progressive image, sought to demonstrate their presence at the cutting edge of technology. Science was becoming the flavour of the age and the owners of breweries, nomatter their size, both invested in it and paid it lip service. Barnard certainly veered towards and at times seemed to heartily espouse science. On his visits and in his writing he touched on many aspects of science which perhaps reflected both his personal interest and also flattered his sponsors and demonstrated their progressive ideas. The extent of this trend may be judged from the frequent and enlightening references to brewery laboratories in Barnard's reports.

The exposure of science started slowly in the first report on Guinness, the largest brewery, in which Barnard only refers to a laboratory in passing, oddly the civil engineers laboratory. At that time civil engineering may have been perceived as more important, but Guinness, in the years to come, were to enormously raise their scientific profile with the recruitment of the celebrated scientist, Horace Brown, from Worthington. On the visit to Bass, the second biggest brewery, their redoubtable scientist, Cornelius O' Sullivan, commands a mere three pages for science. However, two of these are devoted to the model brewery, which seemed to be of particular interest to Barnard, and little reference is made to the laboratory itself. By the time of his next visit to Burton, Dr Griess, of Allsopp & Sons, is allowed just over four pages,

one of which is devoted to a discussion about Arctic Ale. Yet Allsopp & Co. Were determined to emphasise their scientific credentials to their readers by paying for an engraving of the outside of their rather small laboratory. Of the other Burton Brewers the report on Salt & Co., employing Adrian Brown, runs to two and a half pages, one of which is focused on that eminent scientist's research. Worthington, though, tops the Great Britain and Ireland brewery laboratory league by a country mile with twelve pages on science and technology in which Adrian Brown's half brother, Horace, and his laboratory are allowed to take centre stage, even including an engraving of the impressive internals of the laboratory.[37]

The large London brewers seem to be very modest about their laboratories which, in view of Pasteur's well documented visit to Whitbread, is surprising. Their laboratories receive only passing mentions and at Truman's brewery Barnard, either by then a self appointed laboratory expert or an expert apologist, remarks in passing that they 'have laboratories like those in Burton'. In fact in 1900, only some ten years later, JM Hanbury, by then a director of Truman Hanbury and Buxton and also the President of the Institute of Brewing (IOB), stated

> we had no chemist in our brewery a short time ago [does he mean for Barnard's visit in 1889 or perhaps 1888?] and now we have seven or eight.[38]

The presidency of the IOB may well then have been an honorary or purely administrative office requiring no scientific qualification or experience or perhaps a reward for a Damascene conversion to science and undertaking a serious scientist employment scheme. It may have been a purely political one, simply that it was Truman Hanbury and Buxton's turn amongst the founder members of the Beerage to keep an eye on the scientific whizz kids, ensuring that they did not run amuck with the breweries' products or financial resources.

In the medium sized regional breweries references to laboratories are variable; if they existed they are briefly mentioned in passing. However, unexpectedly in visits perhaps made two or three years later, laboratories came into relatively greater prominence. Even in many of the smaller brewers enthusiastic enough to gain entry in Volumes III and IV. Indeed it is almost a characteristic of the entrants into these latter volumes that they have laboratories. Perhaps they feel they had something to prove and having little plant of a sufficient scale to make them stand out and impress the readership used laboratories as a low cost substitute. Two of these small breweries even had two laboratories in different locations within their small sites, early examples of bringing quality assurance directly into the workplace. The Greengate brewery of JW & T Lees had two, one of which under the personal control of Mr Lees who had studied science under academics of both Liverpool and University College,

Figure 8. The Laboratory at the Kimberley Brewery of RH Hanson near Nottingham from Volume III. Barnard writes:

Immediately adjoining is the laboratory a handsomely furnished room … One of the most complete we have seen and kept in beautiful order. On the walls we noticed the framed certificate

City and Guilds of London Institute for the Advancement of Technical Education.
Brewing May 1887.
William B Hanson
First Class Certificate in the Ordinary Grade.
Selbourne
Chairman of Council

London. His laboratories facilities competed with those of the London breweries. The Star brewery, Cambridge, which apparently leant heavily on the local university, perhaps more normally renowned for its students expertise in the drinking rather than the brewing of beer, also maintained two laboratories. Mr Percy Savill of Savill brothers, Stratford, London, and Mr Panton a partner in Canon brewery, Hertford, are clearly brewery owners who are trained and qualified scientists, while Mr LG Bonham Carter, a director of the Portsmouth Brewery, was sufficiently skilled to demonstrate their company's microscope to Barnard. The role of Mr Percy Hudson, the younger son of the proprietor of the

Pampisford brewery, Cambridgeshire, although not mentioned as having been scientifically trained, perhaps reflects a significant shift in society in what was still a very religious age. As a younger son of what was, at least by the time of Barnards visit, a middle class family he has not entered honourable employment in the church where historically he might have spent a career developing and guiding the souls of his parishioners. Instead he seems to have been steered to the technical realities of the brewery laboratory where he must analyse and evaluate clear brewing water, avoid the dark pit of inferior barley, exercise his energy on the efficient conversion of barley into malt and beer and, in the course of all that, he will also be required to become expert in the casting out infective bacteria.

Some small brewery's laboratories, such as the Hereford brewery, received praise. The most detailed description of a small brewery laboratory is in the report on the Kimberley of brewery of RG Hanson which also comes with an illustration [Fig. 8]. So many of these small breweries had significant laboratories, relative to the size of the brewery, that Barnard eventually resorts to very terse descriptions. These descend from a short list of equipment (e.g. Llanelly brewery, City brewery, Oxford, Oak brewery, Farnborough, and the Anchor brewery, Brighton) to the positively abrupt and even dismissive descriptions in the cases of the Nailsworth Brewery, Gloucestershire, ('fitted up with the usual vessels and appliances'), the Ansty and Blandford breweries ('the usual appliances requisite for scientific brewing'), the Trent Valley brewery, Lichfield ('the usual appliances') and the Hope brewery, Milford, Northamptonshire ('the usual paraphernalia'). Was this a reflection of the lack of Barnard's time or was the space available for a laboratory or even of an entire small brewery limited by the respective brewery's financial contribution or by its lack of fame and notoriety? Perhaps Barnard was just becoming ever more familiar with both and, dare I suggest, even bored by the details and terminology of science.

Some brewery owners were certainly looking for a dividend from the significant investments they had made in scientific equipment and even in the most modest breweries the new and regularly used microscope in the brewer's office was proudly brought to Barnard's attention.

Whilst many breweries had their own laboratories far less had specialist chemists. There were few scientists available of the eminence demanded by the Burton brewers who made the town a world centre of excellence in biochemical expertise and microbiological research. This resulted in the formation of the Bacterium Club, in 1876, which later became subsumed into the IOB.[39] For lesser enterprises DIY science was the order of the day with many production brewers, in some cases the brewery owners, dabbling in science and technology, with varying levels of understanding and success.[40] On a few of his visits Barnard

refers to many breweries, some with their own laboratories, using consultant chemists for a proportion or all of their analyses, possibly for interpretation of the results and for technical advice, a situation which even for quite substantial breweries would last for another century.[41]

For some breweries not only science, but the application of technology and logistics, was emphasised and linked to claimed benefits to customer service. The Bristol breweries of Jacob St, with its depot in London and its electronic order gathering links to Bristol Central Telephonic Office, and Charles Garton & Co, with depots in Cheltenham, Plymouth, Birmingham and Southampton, were outstanding examples. They quietly made their local presence and distribution capability known so putting themselves forward for future business in specific, carefully targeted population centres.

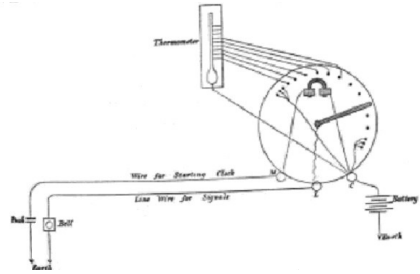

Figure 9. Diagram of Horace Brown's remote electro-thermometric apparatus for remote temperature indication and alarm as applied to malt kiln temperature measurement at Worthington's New Maltings. From Volume 1, p.427. It is the only wiring or circuit diagram in Noted Breweries

Corporate public relations

On the surface Barnard's book offered the really large companies, and indeed not so large, the opportunity to impress the readers with statistics on the size of their plant, the capacity of vessels, the number of barrels, or better still the number of pints produced. The apparent intention behind this being to laud past success and impress with current efficiency and forward-looking, active management in an attempt to guarantee future progress. However, this statistical onslaught was not solely aimed at customers, wholesale and retail, it was also designed to impress potential investors and generate confidence in the breweries as prosperous corporate entities.

Some breweries, particularly smaller ones, were in the sole ownership of individuals, but for the medium sized brewery the capital needs of duty payment and seasonal purchase of raw materials, not to mention forays into tied house purchase, drew them into shared ownership or partnerships. Some 30 years before Barnard was writing smaller breweries, such as the London and Colonial Brewery Company Ltd and the Burton Brewery Co Ltd, had become limited companies, but had respectively been liquidated or achieved only limited

success. However, times had changed. After a period of ups and downs in the 1860s and ‘70s confidence in the concept of limited liability and share ownership had grown and, shortly before Barnard began his brewery work, the industry giants had begun the process of incorporation as limited companies. Moreover, ones with public subscription for shares which could, to some extent, be traded. Guinness had followed this route in 1886, Allsopp in 1887, Bass, Ratcliffe and Gretton in 1888, followed by Whitbread in 1889 and many others watched this move carefully and were to follow the same route in the late 1880s and '90s. The process became particularly important with the need to facilitate the release and passing on in a controlled way to future, and sometimes disinterested, generations the large amount of capital accumulated by the successful brewery owners and also to raise the even larger amounts of capital needed to take part in the scramble to purchase and tie public houses.

In this context a glowing report in Barnard may have been particularly important to those large companies who had recently asked, or were considering asking, the public to subscribe for their shares in what was becoming a fashionable rush to become public companies. Barnard's lively descriptions and illustrations certainly provided an approachable supplement to the dry text and financial details in the typical share prospectus issued as part of a company flotation. They would have been a novel and comparatively exciting way of facilitating corporate research and of raising enthusiasm for individual companies and indeed for the brewing sector as a whole amongst potential new shareholders.

In other words some aspects of an entry into Barnard could well have been an early attempt at what we might imagine is the recently fashionable activity of corporate public relations. The aims were to advertise or present the trader, partnership or company as a business entity rather than to endorse its specific brands, generic products or service it offered. It is seen as particularly vital today for a publicly quoted company to present the right image of corporate probity and responsibility to the public at large. More importantly, in the early days of a limited liability company, there was a need to engender confidence and a close relationship with, and commitment from, its shareholders and, especially to potential investors, to keep the City on board. It serves to encourage both private shareholders and large institutions to buy and retain shares on the basis of past and future profits and a potentially increasing share price. In the case of unwelcome predators or speculators it is intended to do just the opposite; that is to suggest they look elsewhere on the basis that the management is progressive, active and already successfully working on a sound strategy. In other words, that the shares are currently fully priced and offer no potential to a speculator - no easy task! Fail in this and the risk is that you may become the next victim of brewery consolidation, at its worst, you are dis-

membered, your assets stripped and your business erased from everything except the archives.

On the corporate PR front there is also a final, if remote, use for an entry in Barnard. This is the drastic doomsday scenario which was perhaps less likely in 1890s than it was to become in the following decades, the opportunity to use an entry in *Noted Breweries* as a very different kind of kind of advertisement. The entry could be construed by those breweries with expansionist intent as an invitation to make an approach with a view to explore the opportunity to purchase the brewery and, of course, its trade both tied and free. This could be a subtle but deliberate invitation or a guileless, naïve and unintended one. An increased profile, generated by appearing in *Noted Breweries*, particularly if combined with potential overselling of a company's success or potential, or the size of its tied estate could, inadvertently, increase the risk of drawing it to the attention of a potential predator which, without a determined and united ownership, might have unintended and unwelcome consequences. A brewery's fate in either event leaves little to the imagination, the overwhelming majority of Barnard's entrants would be taken over in the course of the next 100 years or so.

Industry public relations

Although there is no evidence of a specific intent or of any direct financial incentive, parts of Barnard's text, in particular his introduction to Volume I, reads as if it had been written by the PR department of the Brewers Society, except that the Brewers Society did not then exist.[42] In particular Barnard's introduction to Volume I, his tone and the general tenor in other parts of the text are pure advertising for the brewing industry as a whole.

How could this arise? It is likely that the brewery owners could hardly have missed Barnard's distillery reports. With that success behind him it is unlikely that he would have had too hard a time selling his project directly to brewery owners, but it is not impossible that it was a group of brewery owners who suggested a similar work on breweries to Barnard. We may never know, unless the answer is buried deep in archived board minutes. There can, however, be nod doubt that a decision to undertake a totally new venture, such as to enter Barnard's book, had to be taken at the highest level of each brewery. Although brewery owners had different political and religious leanings they undoubtedly would have shared views on the business environment in which they operated. Indeed, many of these men were soon to become the council members of the Brewers Society and already knew and were in regular communication with each other. It would have been natural for them to have evaluated the need for and benefits of such a publication and have discussed the advantages of sponsoring a new venture with each-other as well as with Barnard. It is likely that such a new concept with

voluntary participation would have required them to act as individuals outside specific regional industry bodies but nevertheless in concert and in the broadest sense for the industry as a whole. In either event Barnard would have had contact with and work more or less directly for senior figures in the larger breweries, although few actually guided him around the breweries personally.

Maybe Barnard was directly informed of their overall requirements, as well as individual ones, and correctly summarised these. Even if not it is hardly surprising that after conversations with many of them Barnard identified their mood and needs and perhaps subliminally assimilated and condensed their ideas and incorporated them into both his proposal and eventually the work's introduction. The result was that the latter resembles nothing so much as a summarised prequel to the Brewers Society's annual reports and statistical reviews such as were to be produced throughout the next century. For those interested enough to read his introduction to Volume I, as opposed to immediately researching the entry for their own particular company, current beer supplier or favourite brewery, he summarises the industry's point of view very clearly. His introduction to *Noted Breweries* included the points outlined below which may give an indication of his interpretation of his sponsor's real PR brief or his reading of them.

* He explains with some veracity that brewers (or more specifically brewery owners) are amongst the greatest benefactors of humanity; they have been and continue to be abolitionists, philanthropists and major endowers of cathedrals, hospitals, churches and libraries.[43] This was particularly true in an age when philanthropy on the part of successful industrialists was the norm. In other words brewery owners are all round Victorian good eggs and every bit as generous as, and maybe even a cut above, their fellow industrialists involved in coal-digging, metal-bashing and cotton-spinning. They were Victorians, how could they fail to do good?

* Barnard points out that breweries are the major contributors to the Exchequer's and therefore the country's revenues and goes on to quote the industry's last six years financial contributions to the excise. This was for the period following the 1880 Excise Act which changed the collection system to the basis of the specific gravity of a measured quantity of wort. In future years and with an ever more pressing tone the Brewer's Society was to produce even more data on the volume of beer produced and the excise revenue generated. This was part of a generally unsuccessful case as to why the rates of duty should be reduced and certainly not be increased in the annual and other numerous emergency budgets.

* He emphasises the numbers engaged directly and indirectly in the industry, which he estimates at two million people,[44] perhaps 5% of the population, whose stable employment was essential to the good of the nation.

* A generous acknowledgement is given to the customer benefits of moderate beer consumption, no doubt an attempt to counter the increasingly vociferous temperance movement. This was, in effect, an early anticipation of the alcohol and health lobbies and the Brewer's Society's (now the British Beer and Pub Association's) Portman Group which was set up many years later to promote responsible alcohol consumption. After all government legislation to encourage beer consumption was an early counter to the 18th century binge drinking of gin.

* He notes that the working man can stand alongside the gentleman, both physically as well at metaphorically, in taking his preferred refreshment in the form of a drink of beer. This happy situation of selling beer to all levels of society, which is very much to the brewers financial advantage, is lauded by Barnard as indicative of the prosperity of the nation as a whole and the wide distribution of the national wealth the country has achieved. He implies, somewhat superficially, that the social equality this apparently confers is due to the brewing industry. Other, possibly more contentious observations relating to both economic prosperity and social responsibility are ignored, after all Barnard's brief was not to emulate Dickens.

* In the style of an Arcadian idyll he identifies the high level of customer satisfaction achieved by the industry's delivery of the widest possible spectrum of products designed to meet all the customers' possible requirements. In effect he was rehearsing the arguments ranged against the succession of Monopolies and Mergers Commission reports of the late 20th century which culminated in the less than successful 1989 Beer orders.

* The very Britishness of beer is applauded, although this is accompanied somewhat unconvincingly by a potted history of the development of beer over several millennia. This, oddly enough, seems to have been beset with a plethora of strangely foreign names, both of places and personnel. Despite or perhaps because of this, he goes on to naturalise beer as British on the basis of a short history of London's early industrial breweries. This is perhaps fair enough because they were the first to employ industrial-scale brewing plant in the world and this phenomenon was of particular interest to some very significant sponsors.

* In the early days of inorganic fertilisers and before synthetic crop sprays he appears to anticipate future food safety concerns and the rise of organic products. He comes close to painting the breweries as custodians of society's health, a situation which was of declining importance in the face of the much improved state of the urban water supply and sanitation. He describes very positively the natural ingredients of beer and he is clearly seeking to support the industry's refutation of allegations of the use of chemical additives in brewing. This was an issue probably originally arising from

brewing being the first food industry to operate on an industrial scale. It was the first to produce large amounts of pre-processed consumable material out of the sight and control of the consumer. One of the many reasons this early industrialisation was possible before any knowledge of micro-organisms was because beer has a far higher level of inherent microbiological stability than most other widely available foodstuffs.[45]

* The achievement of scientists in improving production efficiency is applauded and, in an attempt to give a pseudo-scientific gravitas to his argument, he indulges in a serious bout of name dropping. He thanks by name a veritable who's who of late Victorian brewing scientists for their assistance. This heralds a future of scientific input into brewing, which was to be increasingly focussed on the financial returns investment in science could bring, and predicts the ascendancy of science over the 'brewer's art'.

* In an attempt to widen his audience he claims to have concentrated on the newest developments and in so doing implies that the large numbers of brewers seeking to remodel their plant should read his work. He certainly highlights both the wide variety of brewing equipment in use and the current trends in plant style, but generally fails to give sufficiently detailed information as to how it is used to be really useful to rival brewers or to brewing students. In fact he manages to describe the latest fashion in plant without disclosing too many trade secrets. This is probably precisely what the brewery owners wanted, to appear progressive whilst maintaining their individual points of difference and the remnants of any commercial advantage their plant conferred. This also suited the patent holding equipment suppliers and the operational head brewers themselves seeking to preserve their income from the training of gentlemen brewing pupils by maintaining their process and plant's secrets.

* He prepares us for the sheer magnitude of the industry which is subsequently confirm by his illustrations of the scale, complexity and statistics of specific breweries. He makes excuses for his personal technical shortcomings and for the omissions he must inevitably make in selecting only the most striking examples of plant in each brewery. In fact in the course of his tours he was to become so familiar with brewery equipment that in many respects he has seen and is more knowledgeable of the variety and latest trends in plant than many of his guides. In later volumes, perhaps to the chagrin of his sponsors, he dismisses what may have been the brewer's pride and joy as like 'those seen elsewhere', and in particular 'as seen in Burton' or 'as seen in London and elsewhere' which both become common phrases.

Although few if any of these points put forward by Barnard were original, like the finest PR he draws all the ideas together and throughout his work he purposefully,

subtly and relentlessly spins a web of euphoria. He creates a brewing (and drinking) world of contentment and happiness which draws the reader in, no matter how much, at times, it stretches credibility and defies reality. Clearly these noted breweries were, in the face of a strong temperance movement, meant to be presented as a force for good in the land, indeed the very bulwarks of society. They were in every way suitable and worthy businesses with which to deal.

It must be observed that in the best PR tradition Barnard's general tone throughout his visits never deviated from enthusiastic support for the industry and its products. Whether because of the need to give paying subscribers a happy reading experience or arising from his own optimistic personality Barnard's many references to the past are seldom spiced with regret. Only occasionally in recording the decline in porter brewing does he allow himself to get close to maudlin.[46, 47] In general yesterday's old plant and volume products, such as porter and stout, are quickly brushed over and his references to buildings or equipment always remains positive and forward looking.

Conclusion

There have been beer writers as long as there have been literate brewers and journalists. The former writing manuals of brewing practice and promoting their ideas, inventions and patents and the latter visiting breweries and volunteering their opinions, with varying degrees of impartiality, in news sheets, magazines and periodicals. Many journalists preceded Barnard, but none attempted a single project combining the width and depth of his unique venture.[48] It had no precedent and has had no subsequent equivalent; the nearest modern parallel, limited to UK owned producers, might be a finely bound, *de luxe* collection of articles similar to those describing visits to UK breweries which appear singly and intermittently in *The Brewer's Guardian* or *The Brewer and Distiller*. At the industry's current rate of change such occasional snapshots would become outdated before a composite work could be assembled and are scarcely equivalent to Barnard's long aperture exposures. As regards a reprise of Barnard's format in the foreseeable future, apart from the small number of internationally owned mega-breweries which produce the large volumes of lager which dominate the beer market, not many brewers could realistically claim to be noted in Barnard's terms. In the current fiercely competitive market these rather more secretive international players would surely be unwilling to offer themselves for comparison in the same publication, either as regards their global operations or their UK plants which represent a very small part of their global activity. Barnard is clearly in no immediate danger of loosing his unique status.

Numbers of Barnard's *Noted Breweries* were always limited, although Volume I was printed in large numbers for use by

the seriously *Noted Breweries* with major wholesale aspirations. When a complete set becomes available it now retails at around £1,000. There are no facsimile editions of the complete books although in the 1970s Bass briefly offered reproductions of the sections covering their own brewery at what was then the Bass Museum shop. A few of the original individual brewery reprints have survived and occasionally come to the collectors book market.

Whatever the weight to be attached to the various ideas put forward in this paper, the reasons for the production of Barnard's *Noted Breweries* were clearly far more complex than his stated objectives suggest. Barnard has left us an impressive legacy and to whatever extent *Noted Breweries* was his idea he is to be congratulated for its thorough and careful execution. Our knowledge of the late Victorian brewing world would be infinitely poorer without it. Also it should not be forgotten that as a journalist from a humble background Barnard and his family's survival depended on his earning a crust. He appears to have achieved that goal and simultaneously enjoyed his work.

My final conclusion I include with apologies since it is by way of being a latter day fly page advertisement, although one for which the author has been neither paid nor from which he will personally benefit. The brewery historian or interested reader can, thanks to modern technology, now access Barnard's complete *Noted Breweries* relatively easily since all four volumes are now available digitally on a CD ROM at a modest price.[49] From either the printed page or the CD ROM a study of Barnard's work will provide the interested reader with both a wealth of information not available from any other source and a flavour of the Victorian age.

Acknowledgements

I wish to thank Ray Anderson, for information on Allsopps brewery and other sources of published information on brewery visits by journalists, and Eric Fower, for unrestricted access to Barnard's four volumes before the digital age.

References

1. Barnard, A. (1887) The Whisky Distilleries of the United Kingdom. *Harper's Weekly Gazette*. A Facsimile Edition with new introduction by Richard Joynson was published by Birlinn Limited, Edinburgh in 2003. In his introduction Joynson reveals some of the limited available information on Barnard (1835 - 1918). This is also available on the internet site: Loch Fyne Whiskies - Scotch Whisky Review http://www.lfw.co.uk/whisky_review/SWR20/article 20-7.html
This is supplemented by some family history published by his great grandson Michael Billinghurst which is currently available on the internet again courtesy of Loch Fyne Whiskies - Scotch Whisky Review http://www.lfw.co.uk/whisky_review/SWR20/ar

ticle 20-9.html)

This indicates that Barnard's father was a draper and grocer who had eight children. Barnard was clearly ambitious and through a variety of career moves in journalism arrived with *Harper's Weekly Gazette*. At some point he felt comfortable enough to describe himself as ‘a gentleman’.

2. Mathias, P. (1959) *The Brewing Industry in England 1700-1830*. Cambridge: Cambridge University Press. p.xii

3. Barnard, A. (1887) op. cit. The length of Barnard's reports on distilleries varied and some of his visits seem to have been either very brief or very uninteresting barely covering half a page. In fact they were often so short that it is very unlikely that the canny Scots would have offered him more than a very small hospitality dram for such efforts. In some cases they run to six and in one case eight pages include two or three pages of description of the journey and topography (Barnard suggests that at one point he was waiting two days for a steamer) and more than one full page engraving of the scenery.

Perhaps a financial return was achieved by distillers investing in advertising in the issues of Harper's Gazette. When the reports were published in book form, it carried 28 pages of advertisements 14 pages of which were directly for whisky or spirits and the rest were largely for distillery equipment or Highland transport.

The original distilleries book has been reprinted both to satisfy enduring interest and to stimulate future enthusiasm for specialist whisky from the long established distilleries surviving from that period. I do not know how many of the 129 Scottish distilleries which Barnard described are still functioning, but I suspect that the survival rate is far higher for these than for the 115 breweries Barnard covered in the four volumes of his brewery books. Perhaps because of these distilleries' survival into the 21st century distillery trails and tours of are still a significant element of whisky marketing and an important tourist attraction and positive factor in the economy of the Scottish Highlands.

The reasons for this contrast between the success of the books and beers of 1889 and the articles, book and whiskies of 1887 are undoubtedly complex and do not solely depend on the marketing skills of the Scots' or even those of the modern international owners of major spirit brands. The key perhaps lies with the different interactions of the brewing and the distilling industries with licensing law, the ownership of licensed property, government policy from the 1880s to the modern day, and, even more fundamentally, with the nature and inherently different shelf lives of the products. Whisky is both more portable (particularly exportable) per unit of alcohol consumed and infinitely more durable than beer. When in glass bottles it is resistant to flavour change (or improvement), but is not totally impervious to the impact of fashion, e.g. the development over time of interest in single malt whiskies. Vintage whiskies survive from 50 years ago and perhaps even from the 1880s and come to auction from time to time achieving astronomical prices. They can and are compared with the modern product and indeed can, at a price, be consumed and pontificated upon! I believe whisky distilled in the late1880s would be broadly similar in character to that distilled today and still be eminently consumable, but beer fashions

have changed dramatically since 1890 and beer brewed then would be very different in character from that brewed today. Not only would it be brewed to achieve a different flavour, but due to the inherent nature of the product it would have changed so much during over a century of storage (in glass) as to be almost unrecognisable from either its original or even its intended mature flavour. It would be practically undrinkable today. The redoubtable Bass King's Ale of 1902, a beer for laying down if ever there was one, indeed tastes more akin to over-aged Madeira whilst the flavour of weaker beers of that vintage we have mercifully been spared.

The nature of whisky enabled it to bypass cool cellar storage, pre-sale preparation and clarification and thus escape the need for a supply chain of brewery owned or controlled warehouses, wholesalers or owned licensed outlets with suitable cellars, This independence enabled it to have more extended routes into wider markets. There was for distillers little advantage in buying tied houses which could in turn attract predatory competitors and equally there was little urban pressure on, or redevelopment values in, remote highland distillery sites. In addition, particularly with a slowly developing interest in the premium sector of single malt whiskies, a very strong link developed to the distillery of origin, rather than to more abstract brand names of blended whiskies. This does not apply to the source of origin of branded gin and vodka and only to a partial extent to branded blended whisky (or generic brandy). The emphasis on the supposedly premium nature of first some English and later foreign beer styles served the contrary effect of weakening the links of innumerable local beers to their breweries of origin. Some blended whisky brands (without distillery identification) indeed fell into the ownership of brewers aiming to supply a complete range of alcoholic beverages to their own houses. From the ruins of the large brewery groups some of these have been rescued and multinational distillery and spirit groups have been formed around them and have invigorated them. Through a century of vicissitudes many older whisky distilleries have survived and, whether within conglomerates or under individual owners distilleries, seem to have weathered the passing years far better than breweries.

With the changes in fashion, government direction and sheer necessity, beer style and strength have changed over a century and there would be little similarity even if direct comparison were possible between beers brewed a century apart. Even for the few brand names still produced in the brewery of origin - now almost certainly on very different plant - any comparison would be equally pointless. Indeed there would be almost as much difficulty in finding enough industrial scale Victorian brewery buildings with operational Victorian style plant to constitute a brewery trail as there would be in finding beers which had been brewed in them which had any claim to real Victorian heritage.

4. WWW.lfw.co.uk whisky-review/SWR20/article20-9.html. Michael Billinghurst, the great grandson of Alfred Barnard, indicates that other works by Barnard include a book on the orchards and gardens of William Whitely, the owner of a large department store, and travelogues including *A Tour in Argyllshire and Classic Cannongate*.

5. Barnard, A. (1891) *Noted Breweries of Great Britain and Ireland: Volume IV*. London: Sir Joseph Causton & Sons. p.ii. Preface.

6. Gourvish, T.R. and Wilson R.G. (1994) *The British Brewing Industry 1830-1980*. Cambridge: Cambridge University Press. p.111. On the basis of counting brewers of over 1,000 barrels per annum in 1891 as common brewers Gourvish and Wilson suggest there were a total of 1950 common brewers; two between one and two million barrels a year, Guinness and Bass, two between a half and one million included Allsopp and one of the London breweries, and ten between 200,000 and 500,000, including many of the old London porter breweries now also brewing ale, and Worthington just squeezes in at around number 14. A further 197 breweries between 20,000 barrels and 200,000 means the universe of brewers reasonably meeting Barnard's standard of 'Noted Breweries' was just over 200 with 1,750 minnows between 1,000 and 20,000 barrels a year .

7. The Worthington & Co. minute books. Held at the former Bass Museum Archive (subsequently Coors visitors centre, now the National Brewing Museum) and now in the care of Staffordshire public records office. These are full of commercial rather than technical interest and note that 25 copies of Barnard, A. (1889a) *Noted Breweries of Great Britain and Ireland: Volume I*. London: Sir Joseph Causton & Sons were purchased at seventeen shillings (17/-) each.

8. The copy in Burton library was no doubt donated by one of Burton's brewery owners, possibly as a result of them inheriting additional copies from the succession of companies it had taken over. Few towns could count on such an inheritance or had such a vested interest in brewing.

9. Indicating an early brand awareness and the value of targeted advertising to parts of the licensed trade.

10. The maltsters, Meakin Bros, Burton, Vol I., Baird H & Sons Glasgow, Vol II., Plunkett Bros malt factory Dublin, Vol III., Soames Arthur & Son Grimsby, Vol IV., were the last report in each volume immediately preceding the overt advertisments, whilst the 5th maltster Moor Head Malting Cardiff was the 6th from last in Vol III. The bottler TP Griffin, although in London rather than Shepton Mallet, was from its separate entry apparently independent, but is commercially so far under the wing of the Anglo-Bavarian Brewery in Vol II that it does not apparently need a separate index entry. Its presence as an export agent and bottler for 'high class' products is the softest of soft sells but it also shows some interest in the export market at time when the British brewing industry as a whole was experiencing criticism for abandoning its worldwide export market to the German brewers.

11. For example *Brewer's Journal* (1897) p.34 Messrs. Free, Rodwell & Sons (Ltd) New Maltings at Mistley Essex. The Brewers Journal regularly printed articles on new breweries and maltings often complete with fold out illustrations of major new builds. These in for example 1896-7 were of maltings built both by sales maltsters and brewers and of major new brewery buildings. They were frequently designed by a major brewing and malting architect, such as Arthur Kinder & Son or William Bradford, for whom they were again not so subtle advertisements as well as for their new owners.

12. Soames malting, eventually under the ownership of RW Paul and was later partly converted to Saladin boxes with the remaining floors mechanised with unique wire finger malt turners it continued to produce into the early 1990s. Its main customer for floor malt in its latter years, and the primary reason for its remaining open so long, was its regular sale to Greehall Whitley & Marston Thompson and Evershed Ltd amongst other traditional and regional brewers who, until its closure, used it as a source of floor made malt of the barley variety Maris Otter. Marstons, perhaps not totally by co-incidence, occupied premises visited and described by Barnard and later were to move to the Albion Brewery in Burton built by Mann Crossman and Paulin and also visited by Barnard.

13. Gourvish, T.R. and Wilson R.G. (1994) op. cit. p.112. Strictly speaking Gourvish and Wilson did not use the exact phrase 'Barnards beerage', their slightly awkward neo-simile was 'a kind of combined Burke's Brewerage and Beerage'. Since their comprehensive book, commissioned by the Brewer's Society, was to was to become almost an extended obituary of the Victorian brewing industry, Gourvish and Wilson wrote respectfully about such past ennoblement whilst inevitably being aware that the age of Burke past was indeed the past. By the publishing date of 1994 (presumably some years after the commission was placed) the industry restructuring had produced a generation of brewery companies and of Brewer's Society representatives which included even fewer surviving members of the major founding families from Barnard's Victorian era. Perhaps my more direct metaphor would not by then have been out of place; some 15 years later it seems positively bland.

14. Barnard, A. (1889a) op. cit. p.112.

15. Gourvish, T.R. and Wilson R.G. (1994) op. cit. p.112 suggest that inclusion in *Noted Breweries* was purchased, but without specifying on what basis any charge was levied and what the cost might be. Clearly up front charges are a possibility and contribution to Barnard's expenses, such as accommodation and travel, are quite likely. Other charges for which there is evidence include purchase price, numbers of copies and/or specific numbers of reprints of a specific article, and the making of a one off charge as a contribution to illustrations. Any costs is likely to have varied for different types and sizes of brewery. The giant breweries, such as Guinness or Bass, were in a powerful position since without them the claim implicit in Barnard's title could hardly be justified. In fact their absence might well have fatally undermined the project, but they may equally well have been the projects prime movers. At the other end of the spectrum the logic for classifying many of the minnows in Vol 4 as in any way 'noted breweries' was extremely tenuous and might have required a different payment structure since it was hardly likely to be covered by significant purchases of the book or of reprints.

16. Anderson R.G. (1988) 'The Fall of the House of Allsopp' In his lecture to the Institute of Brewing (copies are available at the Bass Museum Archive, the Staffordshire Record Office, Lichfield or the National Brewing Library, Oxford Brooks University). Anderson states that Allsopp purchased 50 copies of Vol 1 of Barnard which contained the article on their brewery and 10,000 reprints of the article itself for distribution to customers. The

enormous number of reprints is a significant indication of its perceived marketing value. It is small wonder that copies of Vol I are widely available, but the later volumes are comparatively rare.

17. The Worthington minute books, op. cit. These indicate that 2,500 reprints, presumably of just the section on the Worthington visit, were ordered 'for distribution to Agencies, Travellers and Chief Customers'. Such reprints would provide invaluable support to agents across the country whom the Burton brewers were amongst the first to introduce in order to generate and sustain the wide distribution of their beers. In the Worthington 1889 minute book a note is also made of a payment to Barnard of what was the then considerable sum of £104/4s/11d in respect of an account for illustrations in *Noted Breweries*. There were 19 illustrations relating to the Worthington visit compared to 29 for his visit to Allsopp, who were brewing around four times the volume of Worthington at the time. In fact, for a production of circa 220,000 brls /ann, it may seem strange that Worthington is the smallest brewery company to be included amongst the comparative giants in Vol I, but financially it did contribute rather a lot to Barnard's project.

18. Owen, C.C. (1978) *Burton upon Trent: The Development of Industry*. Chicester: Phillimore & Co. Ltd. Appendix 34 quotes the estimated output for Worthington as 220,00 barrels in 1888 making it the third largest brewery in Burton above Ind Coope at 200,000. The London brewers Courage, brewing 300,000 barrels, Whitbread at 320,000 and Reid at 250,000 all appear in Volume II. The smaller breweries of multi-site companies such as Mann Crossman and Paulin's Albion Brewery and Truman Hanbury and Buxton's brewery in Burton are basically included in Vol I on the grounds of the size of their parent companies and their London breweries rather than the size of satellite breweries in Burton.

19. The suggestion that illustrations, usually line engravings taken from early photographs, were paid for as an extra is interesting in relation to the report in Barnard, A. (1890) *Noted Breweries of Great Britain and Ireland: Volume III*. London: Sir Joseph Causton & Sons p.49 on the Red Lion Brewery in Smithfield, an old established porter brewery possibly about the same size as Worthington This visit resulted in an account which had only two illustrations, one from an old print and one from a design on a tomb. There are no engravings from photographs, no illustration of the buildings, site or plant and the 17 pages of unbroken text is, for Barnard's journalistic presentation, most unusual. An old and landlocked London brewery may not have been particularly photogenic and visually have borne no comparison to the more modern giants, but the absence of any brewery illustrations could also have had a financial basis. It is possible that two illustrations were included in the basic price (or free of charge if they were provided by the company) and the brewery's owners felt it essential to have an entry in the book alongside the other London porter breweries, but for the minimum outlay. They may also have been selfconscious in many ways, not least in producing primarily porter and still using old fashioned slate pontos. This bears a strange similarity, both in style and circumstances, to the article on another

London brewery, Reid's Griffin Brewery in Vol III p.49 which in 21 pages had only one illustration of the brewery (an aerial impression which was presumably generated for the book).

20. Barnard, A. (1891) op. cit. p.ii Preface. Barnard thanks ' those who have so liberally supported this publication', which may simply be a polite catch all or he may very specifically be referring to his brewery sponsors.

21. The large breweries (sometimes with more than one plant) ran to several chapters, but the length of the entries on smaller breweries was obviously less (and so presumably were any associated costs) since with a smaller plant to visit there was less opportunity to wax lyrical about them or their size. How significant the difference in entry fees was we do not know but there was obviously less scope to cover costs by the purchase of books, reprints or engravings (or the actual photographs in the later volumes). Was there a discount for small breweries entering the book or did the essential nature of the large ones mean that the smaller ones paid a fixed charge and the essential entries for large ones were discounted either as on entry, a word count or on a per page basis ? It is likely that we will never know but the system must have been flexible since some entries carried a large amount of travelogue in fact the Star brewery Cambridge in Vol IV devoted 8 pages out of its 17 on the delights of that town.

22. Specific data for output or capacity (it is not always made clear) are not directly quoted in Vols I or II apart from Mann Crossman and Paulin in Vol I which was "exceeding 250,000 barrels' and 3 breweries from Dublin in Vol II who may be using some Irish license to quote suspiciously round and large capacity figures , Anchor brewery 250,000 barrels, Mountjoy 100,000 and North Anne Street 100,000). Eshald Well (Woodlesford) in Vol III quotes 100,000 but most still avoid the issue totally. In Vol IV The Saint St Brewery (Sheffield) 30,000, the Star Brewery (Shipstones, Nottingham) 32,000 and the Star Brewery (Cambridge) 20,000 are the smallest to declare their production Capacity. Pampisford employing the same number of men as The Star brewery Cambridge was probably very similar in output.

23. From personal experience, the key count of casks or containers is that made by the cask department manager and bottling/kegging manager of all full and empty containers on Christmas day. This hopefully justifies past frugality and substantiates the following years investment in new containers or container repairs. The optimal count for empties on these occasions was just enough casks to meet half a days racking - hoping the drays return early and well laden with empties.

24. Gourvish, T.R. and Wilson R.G. (1994) op. cit. p.142. Suggest that a drayhorse could deliver about 2,000 barrels a year a figure which had been stable for from 1830 but depended on their only duty being delivery to licensed houses as opposed to transport to railway sidings for wholesalers or to depots or packaging (bottling) sites.

25. Barnard, A. (1889) op. cit. p.408. A strange example of this is Worthington which in 40 well illustrated pages and six chapters in Vol I (including in three and a half chapters on lengthy history, scientific research and

quality control) seems very deliberately to give as little useful information on plant number, size or capacity as possible then in a penultimate small paragraph lets slip as if a guilty afterthought a fairly accurate capacity figure of 200,000 barrels, which is confirmed by other sources (see note 16). In the absence of the two surviving Worthington brothers who seemed intent on following the family tradition of activity in local politics and any other local activity available, there can be little doubt that this unique report was driven by the chemist Horace Brown. As General Manager of the manufacturing and outdoor departments he was Barnard's guide and he was enthused by his own technical developments. Barnard avoided any dilemma this created by reflecting precisely the balance of interests which his guide presented. It remains that Worthington scarcely justifies Vol I status except in so far as the nature of its wholesale trade for both casks of draught beer and for large casks of beer for bottling was probably a significantly higher proportion of its production than most other breweries. Worthington needed the exposure more than any other brewer of their size and indeed bought it.

26. Gourvish, T.R. and Wilson R.G. (1994) op. cit p.113. The acquisition of tied houses had developed particularly in London in the 19th century, but Gourvish and Wilson point out that Steward and Patteson of Norwich had been acquiring houses since 1837, possibly as a defensive measure against the London brewers, and were followed in this by other Norwich breweries. This tied trade dominance of the local market was to lead to the cask beer desertification of East Anglia perpetrated by Watneys, who had purchased most of the regional East Anglian breweries in the 1960s and 70s. This situation was so lamented by cask ale drinkers that it significantly contributed to the rise of CAMRA.

27. Barnard, A. (1889) op. cit. p.v.

28. ibid. p.ii. Preface.

29. Compared to the large breweries with national distribution such as Bass and Guinness and later Whitbread very little advertising material survives from smaller breweries. Worthington a medium sized brewer leaves a lot of advertising material reflecting the national distribution of its products and a dependency on marketing but very little information about its brewery or plant other than the Barnard entry .

30. Molyneux, W. (1869) *Burton on Trent: Its History, its Waters and its Breweries*. London: Trubner & Co. P.234.

31. This may have been a 19th century object lesson in the PR management of a food scare, even one which was demonstrably false. Brewing was only a generation away from a domestic craft and everyone's mother had done it - or had servants to do it. Wholesomeness was expected, especially so since beer had proved to be a far safer drink than many a local water supply and it counted even more in the face of the many outrageous assertions by the temperance movement of the day, than it does in the mass market of the modern age. The term chemical beer was an emotive and damaging description which lingered well beyond the middle of the 20th century, visible endorsed by the use of metal casks as opposed to 'natural' wooden ones. But the pendulum swings both ways and in recent years the organic and GM free

descriptors are, despite gallant attempts, of only minor commercial importance in the face of the young drinkers preference for constantly churning brands of concocted alco-pops and spirit mixers.

32. The depiction of a dancing, jumping or rather hopping sailor with a wooden leg seems to be a play on the term hop rather than a somewhat disrespectful personal representation of one of the early partners of a major Brewing Company.

33. This situation has many parallels with the lager boom of the late 20th century when the demand for foreign owned lager brands generated at least in part by direct brand advertising to the consumers. This grew to the extent that the small breweries operating their own tied houses needed to stock strong lager brands, this time international ones, which they could not produce themselves. On this occasion the rise in lager is seemingly inexorable whereas in the 1890s the apparent equally inexorable decline in Burton ales had just begun.

34. Anderson R.G. (1988) op. cit.

35. In view of the expense of writing, illustrating and printing your own brewery brochure it is likely that Barnard's reprint service presented an economical as well as convenient form of high class advertising which came with Barnard's almost celebrity endorsement as journalist to the licensed trade, if not the public at large. Many less well known names procured reprints of the report on their brewery in the form of slim hard-backed books bound in uniform with the full volumes of Noted Breweries, Salts brewery and the Dorchester brewery are other examples in addition to Allsopp, Worthington and Bass already mentioned.

36. Gourvish, T.R. and Wilson R.G. (1994) op. cit p.61 passim discuss the slow take up of science by the brewing industry.

37. Barnard, A. (1889) op. cit. p.408 certainly spent a lot of time in Worthington's laboratory with the famous chemist H.T. Brown who must have been a very engaging man. Barnard describes his work with enthusiasm, (possibly following his brief). He covers water analysis (two pages) remote malt kiln thermometers (three pages) the latest laboratory and scientific developments (nine pages) but sadly his visit around the brewery was apparently rushed, details are scant and the entire collecting and fermenting plant was described in less than a page of text and two engravings. However, it was arranged, perhaps the high profile given by Barnard to Horace Brown was an opening shot in recognition of the new celebrity status awarded to brewing scientists, not to mention a stepping stone for Horace to greater opportunities with Guinness and a transient stoking up of the transfer market in unquestionably famous scientists. Horace's half brother Adrian Brown ultimately left Salts brewery to take the chair of brewing at Birmingham university.

38. Quoted by Gourvish, T.R. and Wilson R.G. (1994) op. cit. p.60 from the *Brewer's Journal* 15 Feb 1900 although in fact Truman Hanbury and Buxton apparently employed their first chemist in 1888.

39. ibid.

40. ibid. In 1892 there were 290 members of the Institute of Brewing (founded in 1890) which was pretty well the number of scientists with a brewing interest who were available, but by 1900 there were 1,000.

41. This situation I can personally attest.

When I joined Marston Thompson & Evershed in 1965 there was a small laboratory - a sink, a bench, a microscope and an elevation of boiling point alcohometer in a small space, almost an alcove, next door to the production staff toilet. This was despite the celebrated and, by then, venerable Head Brewer, George Peard (an ex Bass man) holding a masters degree (albeit in metallurgy). There was no chemist, the head brewer or deputy head examined the pitching yeast for the day. The shift brewers checked the original gravities of some of the returns on non-brewing or quiet days. Samples for microbiology (forcings) and water analysis and some barley and malt samples were sent away for analysis to Mathews and Lott the brewing consultants who had a small laboratory up a winding staircase in a building just off the (old) Trent Bridge which resembled a smaller version of Worthington's laboratory illustrated in Barnard. This, I believe, was not untypical of many regional breweries - and was well behind the facilities of some of the small brewers described in Barnard 80 years earlier. My task as Chemist/brewer (*inter alia*) was to establish a laboratory and an analysis routine. My advent was part of a much delayed major investment as part of which the laboratory was expanded some eight times in size and a lot of basic equipment was purchased. The advent of the laboratory caused some consternation based on the possible advent of that persistent term 'chemical beer', but Marston's products were too crucial to the company's success to allow them to suffer at the hands of science. The laboratory and the chemist were kept well under control and well out of sight.

42. That august body was in fact formed in 1904 by the amalgamation of The Country Brewers Association, The Burton Brewers Association and the London Brewers Association, but all of these had been operating for some time and exerted considerable influence. Gourvish, T.R. and Wilson R.G. (1994) op. cit. p.211.

43. With the notable exception of the original parish church of St. Modwen, most of the many churches of Burton were built during its mid and late Victorian expansion and were largely endowed by the brewers of Burton. These include:-

John Hackett Marston
St John's, Horninglow 1864/67
John Gretton
St Mark's, Winshill. 1869
MT Bass (Michael Thomas Bass)
St Paul's, St Paul's Sq. 1865/74
MT Bass
St Margaret's, Shobnall St. 1881
MT Bass
St Peter's, Stapenhill. 1880/81
H Allsopp et al.
Holy Trinity, Horninglow. 1880/2
Mann Crossman & Paulin.
St Aidan's, Shobnall Rd. 1884
Sir WAH Bass (William Arthur Hamas Bass)
All Saint's, Branston Rd. 1898
John Gretton
St Mary's, Stretton. 1897
Lord Burton (Michael Arthur Bass)
St Chad's, Hunter St. 1903

Sources: Stuart, D (1975). *County Borough, History of Burton upon Trent. Volume I*. Charter Trustees of Burton upon Trent and *Noted Breweries*.

In Vol I Barnard specifically recognises St

Paul's and St Margaret's (a chapel of ease) and St Paul's institute (later the Town Hall with subsequent enlargement) by M T Bass and St Marks by Mr Gretton and the public baths by Mr Ratcliff. MT Bass also built a church and institute in the village of Rangemore, close to his stately home south of Burton.

St Chads is included in Pevsner, N. (1974) *The Buildings of England: Staffordshire*. London: Penguin Books Ltd.

44. Barnard, A. (1889) op. cit. p.xv. In his introduction he bases it on a figure estimated by Professor Leone Levi in 1871 as 1.5 million subsequently estimated by an eminent statistician (unnamed) as being close to 2 million which presumably included all the licensed trade.

45. The chemicals in beer issue seems always to have been with us and raised its head periodically during the 19th century and stubbornly refused to go away, perhaps since there was often just a hint of truth in it but mostly because it is never possible to prove a negative especially to a suspicious and intoxicated mind. Perhaps it started with the close connection between communities and their breweries and the difficulties in keeping brewing activities secret, a process multiplied many times over in Burton. This was coupled with a garbled awareness of the breweries' activities, drawn from a workforce devoid (at all levels) of scientific training and generally denied any clear explanation of what they were doing and why. This fed an alarmist public equally ill informed and ignorant of science but fuelled by food scares, generally alleged rather than genuine.

The British brewing industry was perhaps viewed adversely in this respect in light of the German purity laws. As a PR issue adopting this absolutist would have been the ideal counter. Unfortunately it was largely incompatible with the British beer styles and production methods which had developed as a part and parcel of the early introduction of industrial scale brewing and extended distribution chains.

When these problems arose they were generally from scientific ignorance and lack of joined up thinking rather than wilful neglect or deliberate addition or use of chemicals and were dealt with effectively and with intensive and expensive measures often continued long after the need had disappeared and even after more modern ideas on quality assurance and risk assessment had been developed.

Examples were to arise on several occasions in the 19th and even 20th centuries. The allegation of use by Burton brewers of salt , steel, honey, prunella, jalap, suphate of lime and black rosin was made by the Society for Diffusing Knowledge Treatise no 60. Treatise on Art of Brewing which resulted in court action in 1830. Molyneux, W. (1869) op. cit. p.234.

Similarly the alleged strychnine scare of 1852 which focuses on a swell of continental innuendo generated by envy of Burton's legitimate success and which was although totally refuted may well have fertilised existing suspicion. (Liebig, J. (1852/3) Remarks upon the alleged use of strychnine on the manufacture of pale ale. (In a Letter to Henry Allsopp, Esq., Burton-on-Trent), reprinted (2007) Dagenham: Barrel to Bottle Press). The brewers acted promptly to refute these, which since they were false, was not difficult and perhaps these easy victories lead to a false

sense of security.

Although some 10 years after Barnards writing, 10 years of scientific work which should have improved scientific knowledge and reaction speed, brewers reacted ponderously and grudgingly to the great arsenic poisoning scare of 1900 caused by the use of inferior grade sulphuric acid in caramel manufacture and later by the use of unsuitable coal in the direct fired kilning of malt. These were classic case studies of how not to handle a food scare and product recall and has since been repeated many times although usually not by brewers. The arsenic issue was thoroughly covered by Gall, A. (2008) 'What's Your Poison?' *Brewery History*, 128 and Dyer, P. (2009) 'The 1900 arsenic epidemic.' *Brewery History*, 130. The stable door on arsenic checks was eventually firmly and expensively closed, but 60 years later large breweries still had benches full of Gutzeit flasks in continuous use for arsenic checks.

46. Barnard, A. (1889) op. cit. pp 377-8. In his visit to Mann Crossman and Paulin's Albion brewery in London he spends over a page noting, not without emotion, various aspects of the impact of the demise of porter, almost turning on 'the fickle public' who 'has got tired of vinous flavoured vatted porter'.

47. Barnard, A. (1891) op. cit. p.333. The survival of the Ansty Brewery of Hall and Woodhouse is noted as 'one of the few remaining old fashioned country breweries of which so many have been destroyed by the exigencies of modern competition'. However, Barnard then visits, without comment, Hall and Woodhouse's then even smaller Blandford brewery which has become a very notable and much developed survivor, but for which no illustration is included.

48. Many commercial magazines, such as the *Penny Magazine* and the *London Illustrated Gazette*, have published articles on specific breweries. Breweries themselves have published histories and guidebooks although in general these focus on more general family history, with a little commercial history on the side and cover the plant and premises on which the product was produced only briefly and superficially. The trade press has also published more detailed information from before Barnard's work, in particular the *Brewer's Guardian* (first published 1871) printed short accounts of breweries. These are possibly written by the editor Thomas Lamprey in a style similar to Barnard but shorter, without illustrations and not always as clear and detailed as Barnard's efforts. They included little of the family and commercial details which lighten Barnard's accounts. An example is the account of Rigdens brewery Faversham in the *Brewer's Guardian* Vol XI, 1881, p.141

49. As part of the Archive CD Books Project, Dublin University has published all four volumes in digital format on CD ROM. Copies of this are available from the Brewery History Society Bookshop details of which are available in the Society's Newsletters and on its website.